SONY

KV21XMTE

MODEL

SERVICE MANUAL

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SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1

GENERAL

Note) The layout, etc., will be slightly different from the operating instructions packed with the units.

1–1. FIRST OF ALL

1 Connect the aerial to the ⊓ socket on the rear of the set.
This socket receives the standard 75-ohm aerial plug.
2 Plug in the set.
3 Tune in the available channels.

Use the buttons inside the panel. To open the panel, push the center.

To tune in all channels automatically :
1 Press ⇨ (preset).
2 Press PROGR to select the program position from which tuning is to start.
3 Press ⇨ (auto programing).

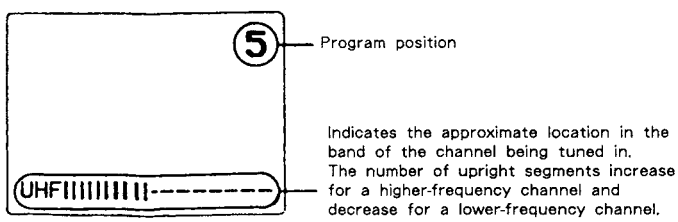
The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 2.
When tuning has been completed, the set returns to the position where tuning began.

To tune in a channel in any desired program position.
(e. g. the position which the same number as the channel) :
1 Press ⇨ (preset).
2 Press PROGR to select the desired program position.
3 Press C (clear).
4 Press ⇤⇥ (search) repeatedly until the desired channel appears.
5 Repeat steps 2 to 4 for all channels, if required.
6 Press ⇨ (preset) again.

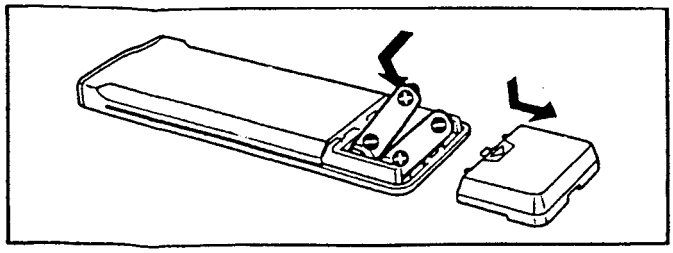
If the set is to be used in an area with poor reception, preset the program numbers between 1 and 19 for TV program use.

To have the unused program positions skipped when PROGR+ or PROGR− is pressed
1 Press ⇨ (preset).
2 Press PROGR to select the unused position.
3 Press C (clear).
4 Repeat steps 2 and 3 for all unused position.
5 Press ⇨ (preset) again.

On-screen display while tuning

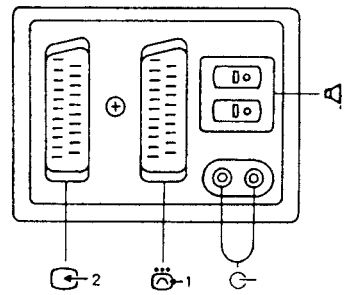

5
Program position
UHF
Indicates the approximate location in the band of the channel being tuned in. The number of upright segments increase for a higher-frequency channel and decrease for a lower-frequency channel.

4 Insert two R6 batteries checking the correct polarity.



1–2. CONNECTING OTHER EQUIPMENT

Connectors on rear set



L/G/S	Left external speaker terminal (2-pin DIN)	Connect to external speakers. The TV speakers will be disconnected. speakers 8–16 Ω
R/D/D	Right external speaker terminal (2-pin DIN)	
R/D/D	Right audio output jack (phono jack)	Connect to audio equipment. When only using the phono-jacks, two loudspeaker plugs, (DIN 41529) should be insarted into the extemal speaker termi nals so that the TV spaker output is switched off.
L/G/S	Left audio output jack (phono jack)	
1	21-pin connector (CENELEC standard)	Connect to a VTR micro computer, etc. The picture of the TV channel being received is always output. The picture of 2 can be watched while recording a TV program with the VTR connected to 1.
2	21-pin connector (without RGB input)	Connect to second VTR. The picture displayed on the screen is always output. The picture of 1 can be recorded with the VTR connected to 2 while monitaring the picture.

VTR operation using the supplied Commander

Remote operation of the VTR is limited to the features and functions of the VTR. For further details, refer to the VTR manual.
When watching a video with the VTR connected to the ⊓ connector, set the channel for the video to the program number 0 or any empty channel between 20 and 29.

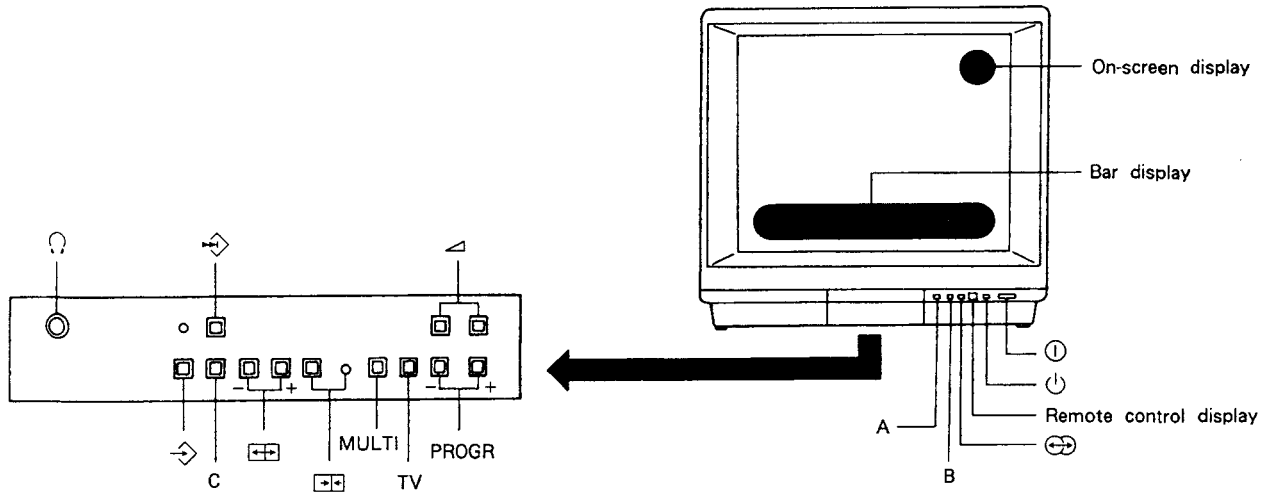
Note
Move the VTR away from the TV, if the picture or sound is distorted.

21 pin connector (1, 2)

Pin No.	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
2	○	○	Audio input B (right)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
3	○	○	Audio output A (left)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
7	○	●	Blue input	0.7 V ±2 dB, 75 ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10 k ohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green/Green with sync input	Green signal : 0.7 V ±2 dB, 75 ohms, positive Green with sync signal : 1 V ±2 dB, 75 ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	●	Red input	(Same as Pin 7)
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75 ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1 V ±2 dB, 75 ohms, positive Sync : 0.3 V (–3, ±10 dB)
20	○	○	Video input	1 V ±2 dB, 75 ohms, positive Sync : 0.3 V (–3, ±10 dB)
21	○	○	Common ground (plug, shield)	

* at 20 Hz–20 kHz ○ connected ● unconnected (open)

1–3. FUNCTION OF CONTROLS



On the set

On-screen display
Indicates program numbers and input modes.

Bar display
Indicates the level of volume, color, brightness, contrast, bass, treble and balance.

Note on function.
When the volume is at the minimum setting the balance function will not operate.

Power switch
To cut off the mains power completely, press this switch. Depress the power switch fully to ensure correct operation of the set.

Note
To ensure correct operation, push the switch in fully.

standby indicator
Lights up brightly when the set is in the standby mode.

Note
If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

space sound indicator
Lights up when on the Remote Commander is pressed.

A/B indicators
One of them lights during bilingual broadcast. (Choose A or B with the Remote Commander.)
Both light during stereo broadcast. In AV mode, A lights for left channel, B for right channel, or A and B for both channels.

Remote control detector
Point the Remote Commander towards this detector.

Inside the panel

headphones jack (stereo minijack)

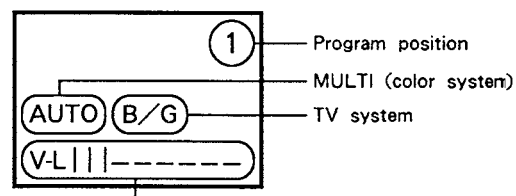
SEARCH buttons
Press to fine tune a weak channel manually, if required. When is pressed, the indicator (AFT) goes off and the AFT cricuit does not function on the selected channel. To restore the AFT circuit on this channel, press (AFT) so that the indicator lights up.

AFT button and indicator
Normally, press so that the indicator lights up.
The AFT circuit automatically fine tunes the channel for the best possible picture.

volume buttons

PROGR+, PROGR– program scan buttons

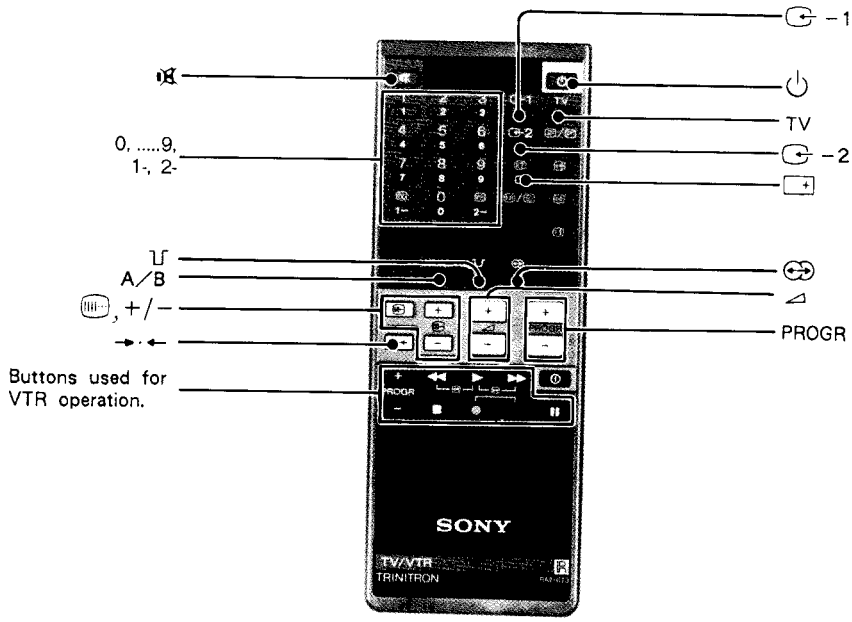
On-screen display during presetting



Indicates the approximate location in the band of the channel being tuned in.
"V-L" : low VHF band, "V-H" : high VHF band, "UHF" : UHF band.
The number of upright segments increases for a higher-frequency channel.

Each time TV button is pressed, the following indications appear in this order.
B/G : West European TV standard
I : British TV standard
M : American TV standard
D/K : East European TV standard
L : French TV standard

Each time MULTI button (COLOR SYSTEM) is pressed, the following indications appear in this order.
AUTO ; NTSC3.58 ;
Normally set to the AUTO position. The available color system is selected automatically.



RM-673

On the Remote Commander

To operate the Commander, point it toward the remote control detector.

mute button

0, ..., 9, 1-, 2- buttons
To tune into :
program 15, press 1- and 5.
program 25, press 2- and 5.

A/B button
Press to select the language in a bilingual broadcast, or to select the channel in AV mode.

, +/− analogue select buttons
Press .
◑ will appear on the screen. Adjust by pressing + or −.
Press again and adjust (color), then ☼ (brightness), (bass), (treble) and (balance).

→ • ← reset button
Press to reset color, contrast and brightness to factory-set levels.

standby button
Press to change to the standby mode. Use this button to turn off the set for short periods of time.
To turn on the set, press TV or the program number ; there will be a slight delay before the picture is restored.

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

TV button
Press to change to the TV mode from standby, input or teletext modes.

1 input button
Press to view the input picture coming in through the 1 connector.
"1" lights up on the screen.
Press TV or the program number to return to the TV mode.

2 input button
Press to view the input picture coming in through the 2 connector.
"2" lights up on the screen.
Press TV or the program number to return to the TV mode.

on-screen display button
Press to make the display appear on the screen.
Press again to make it disappear.

loudness button
Press to emphasize high and low notes.

space sound button
Press to obtain special acoustic effects.

volume buttons

PROGR program scan buttons

Note
Buttons not referred to on this page or next page do not operate.

1–4. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

Operation

1 Select the TV channel for the desired teletext service.
2 Press ⊜/⊜ (TEXT/MIX) to display the teletext service.
Once ⊜/⊜ has been pressed, the TV channel cannot be changed.
3 Key in the three digits for the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then re-enter the correct page number. The requested teletext page is displayed.

To return to the TV mode, press TV on the remote commander.

The teletext service can be displayed directly from the standby mode, by pressing ⊜/⊜.

To receive the teletext service of a different TV channel
1 Press TV to return to the TV mode.
2 Select the desired TV channel.
3 Press ⊜/⊜.

Note
To receive the teletext service accurately, keep ⊡ inside the panel switched on during teletext operation.

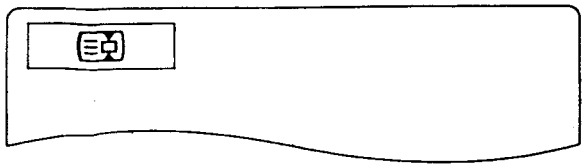
To display the index page
Press ⊜ (INDEX).
If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press ⊜ (PAGE+) or ⊜ (PAGE−).

To superimpose the teletext display on the TV picture
Press ⊜/⊜ twice from TV mode.
Press again to return to the TEXT display.

To suppress the teletext display so that the TV picture is displayed
Press ⊜ (TEXT CL).
This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page (subpage) from being updated /changed
Press ⊜ (HOLD). The HOLD symbol appears at the top of the screen.



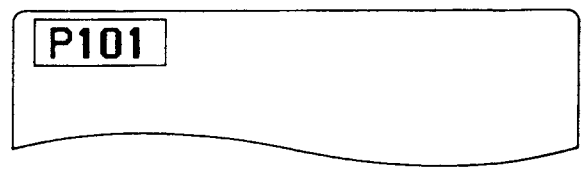
To resume normal teletext reception, press ⊜/⊜.

To enlarge the teletext display
Press ⊜.
Press once to enlarge the upper half of the display ; press again to enlarge the lower half of the display ; press again to return to the normal display.

To reveal concealed infomation such as the answers to a quiz
Press ⊜ (REVEAL).
Press again to conceal the answers.

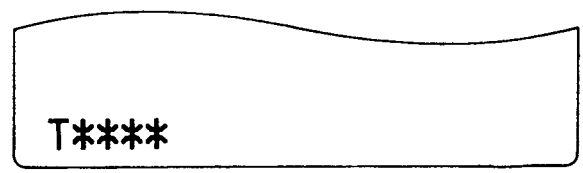
To adjust the contrast of the teletext display.
When in teletext mode, adjust by using the + or − keys adjacent to the ⊜ key.

To watch the TV program while waiting for a requested page to be displayed
1 Request the new page.
2 Press ⊜ to watch the TV program.
The requested page number appears at the top left of the screen.
When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.

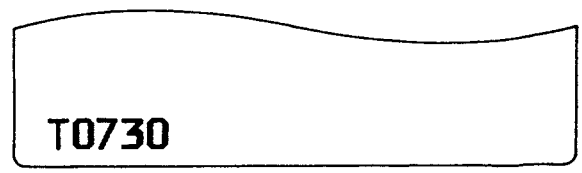


To view this page, press ⊜/⊜.

To have a requested page displayed at a pre-determined time
1 Request a time coded page (e. g. alarm page).
2 Press ⊜ (TP ON).
"T✱✱✱✱" will appear at the bottom of the screen.



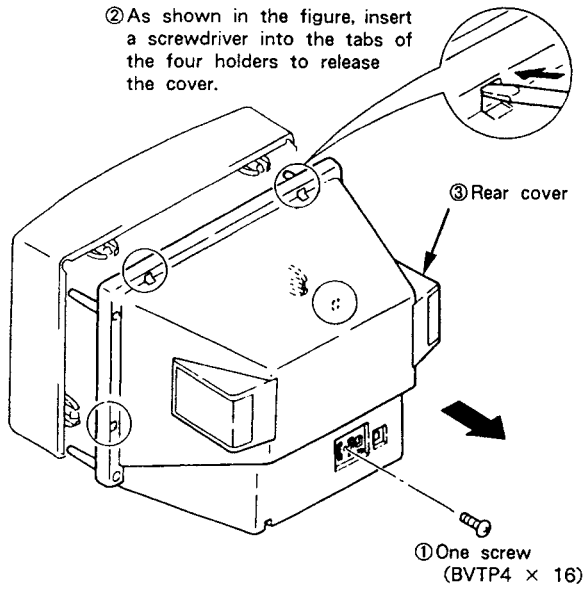
3 Enter your request time with the number buttons, using four digits. For example, 07 : 30.



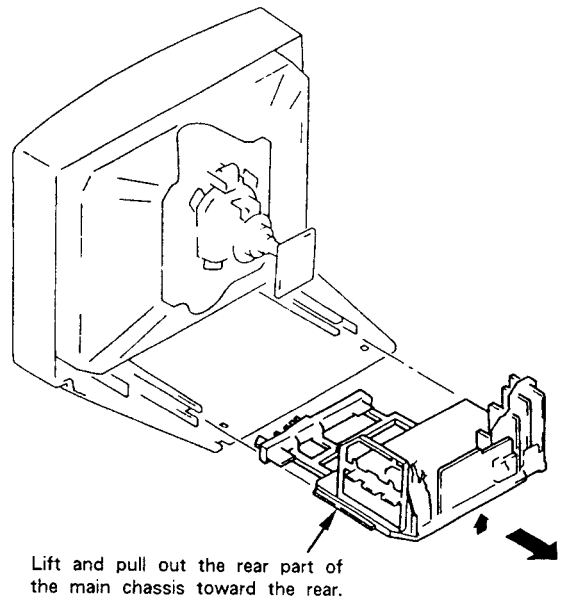
To watch the TV program until the requested time, press ⊜. At the requested time, the page number will be displayed at the bottom of the screen.
To view this page, press ⊜/⊜.
To cancel the request, first ensure that the teletext page is displayed, then press ⊜ (TP OFF).

SECTION 2
DISASSEMBLY

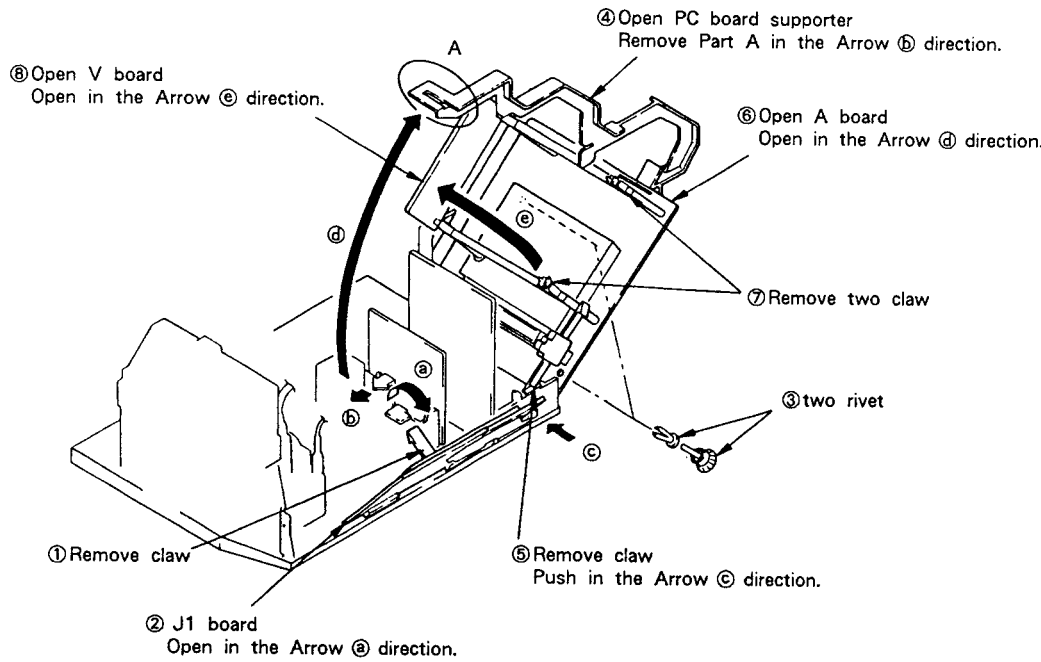
2−1. REAR COVER REMOVAL


②As shown in the figure, insert a screwdriver into the tabs of the four holders to release the cover.
③Rear cover
①One screw (BVTP4 × 16)

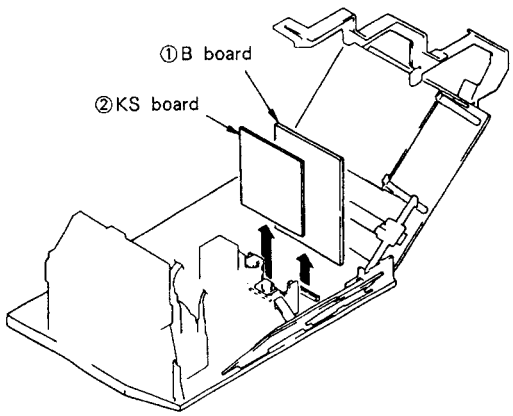
2−2. CHASSIS ASSY REMOVAL



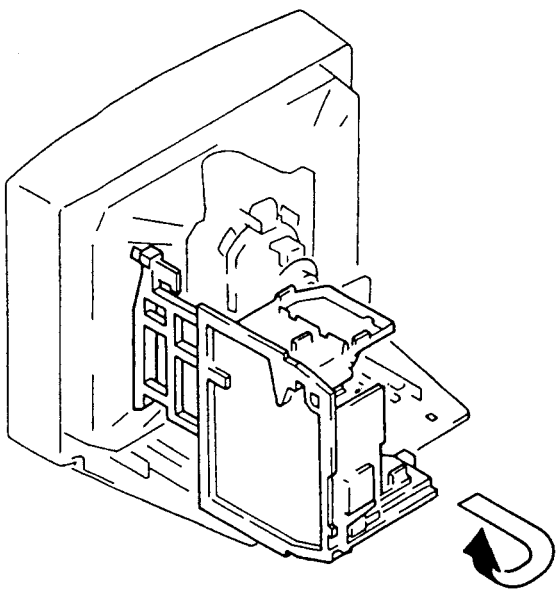
2−3. J1, A AND V BOARDS REMOVAL



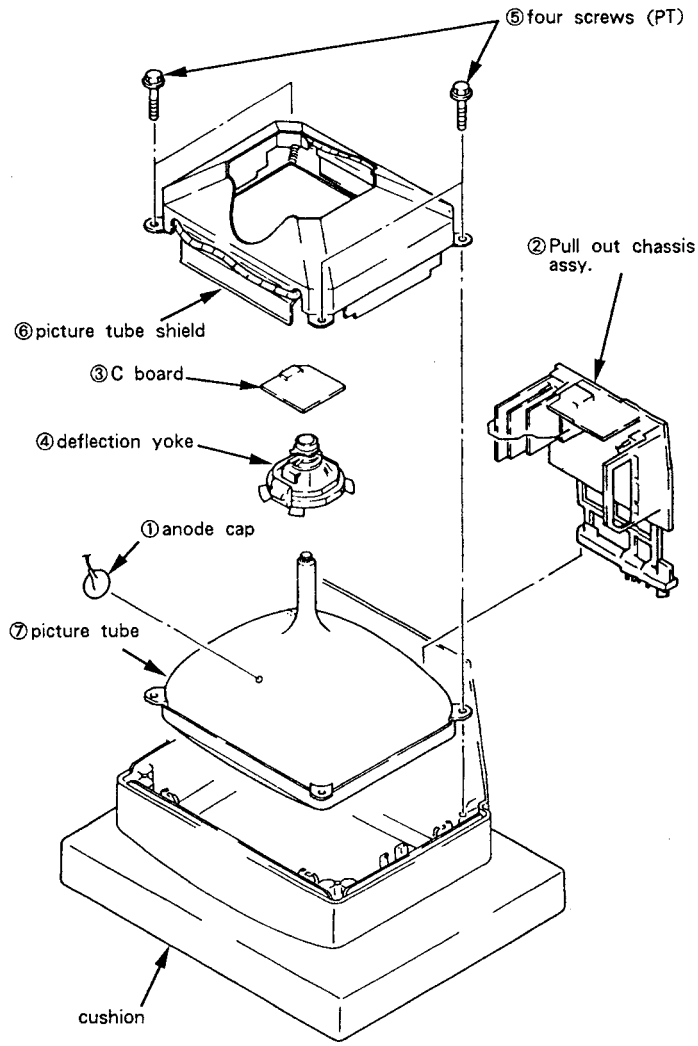
2-4. KS AND B BOARDS REMOVAL



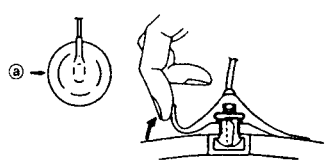
2-5. SERVICE POSITION



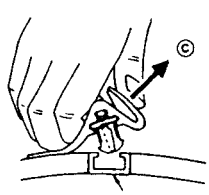
2-6. PICTURE TUBE REMOVAL



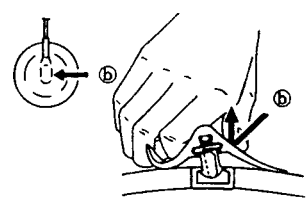
- **Removing Procedures**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

◑CONTRAST control ····· 80% (or Normal by Commander)

☼BRIGHTNESS control ····· 50%

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Precaution

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in oder to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.
   CONTRAST ····· normal
   BRIGHTNESS ····· normal
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 3-1)
5. Switch over the raster signal to blue and green and confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corners is not right, adjust by using the magnet. (Fig. 3-4)

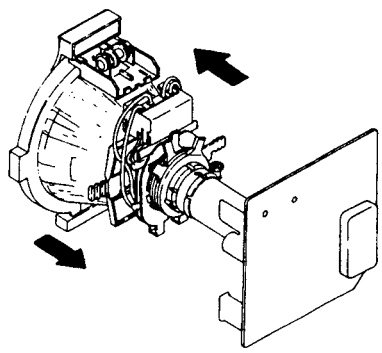


Fig. 3-1

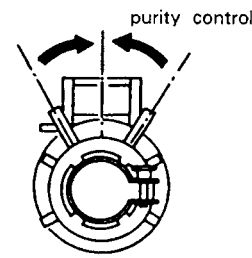


Fig. 3-2

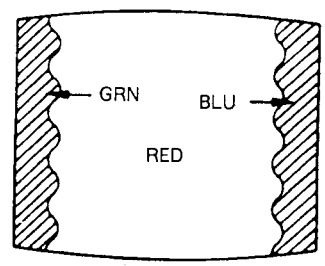


Fig. 3-3

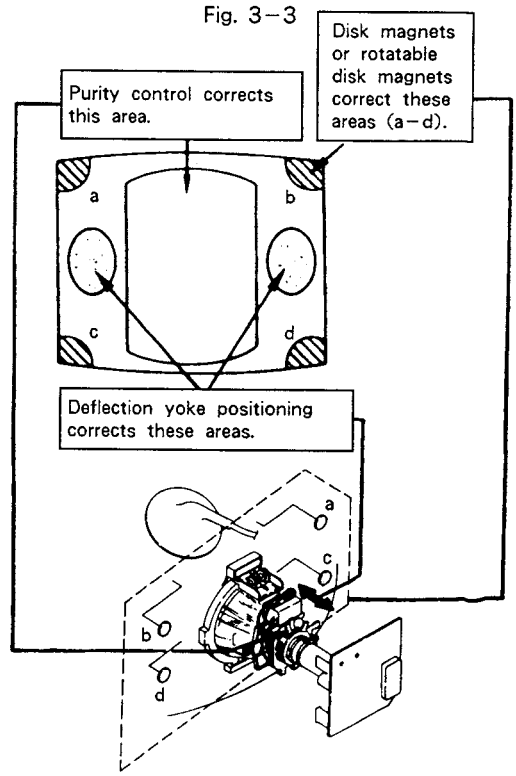


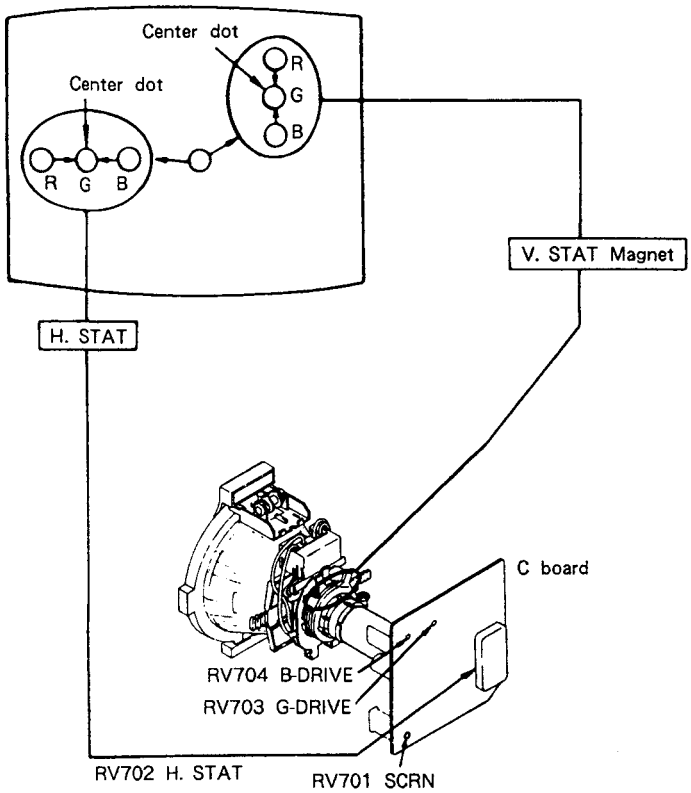
Fig. 3-4

3−2. CONVERGENCE

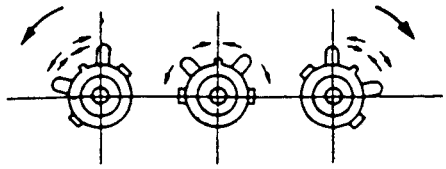
Preparation :

- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

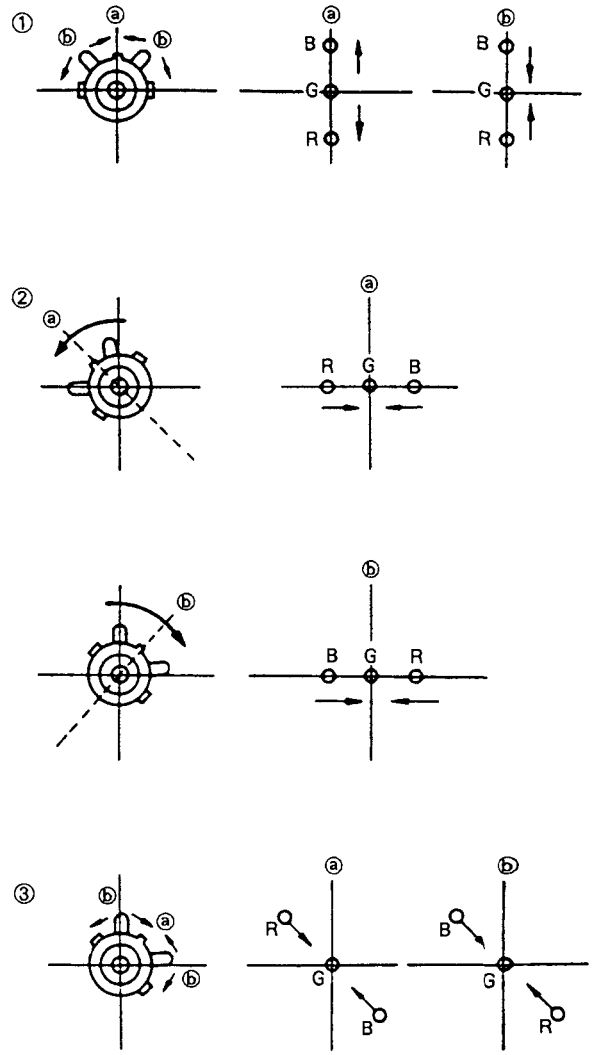
(1) Horizontal and Vertical Static Convergence



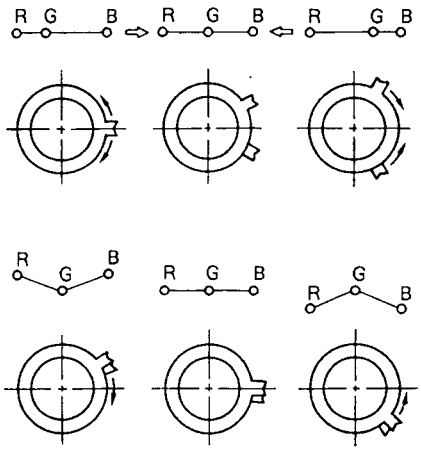
1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



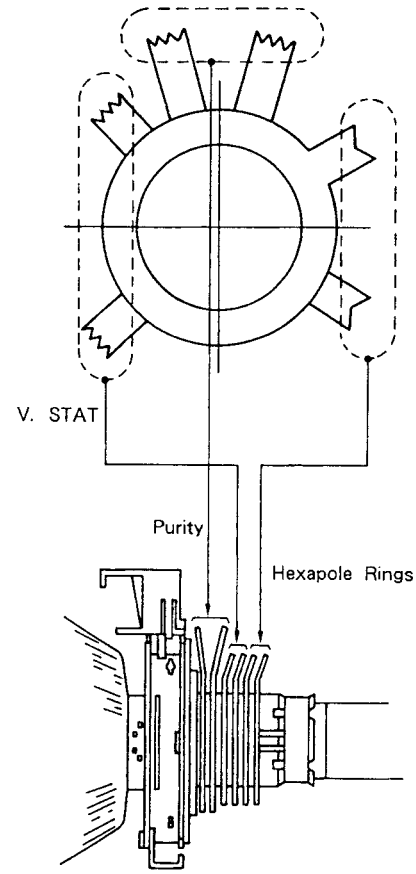
4. When the V. STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.



- **Operation of Hexapole Ringed Magnet**



The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.
Use the H. STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

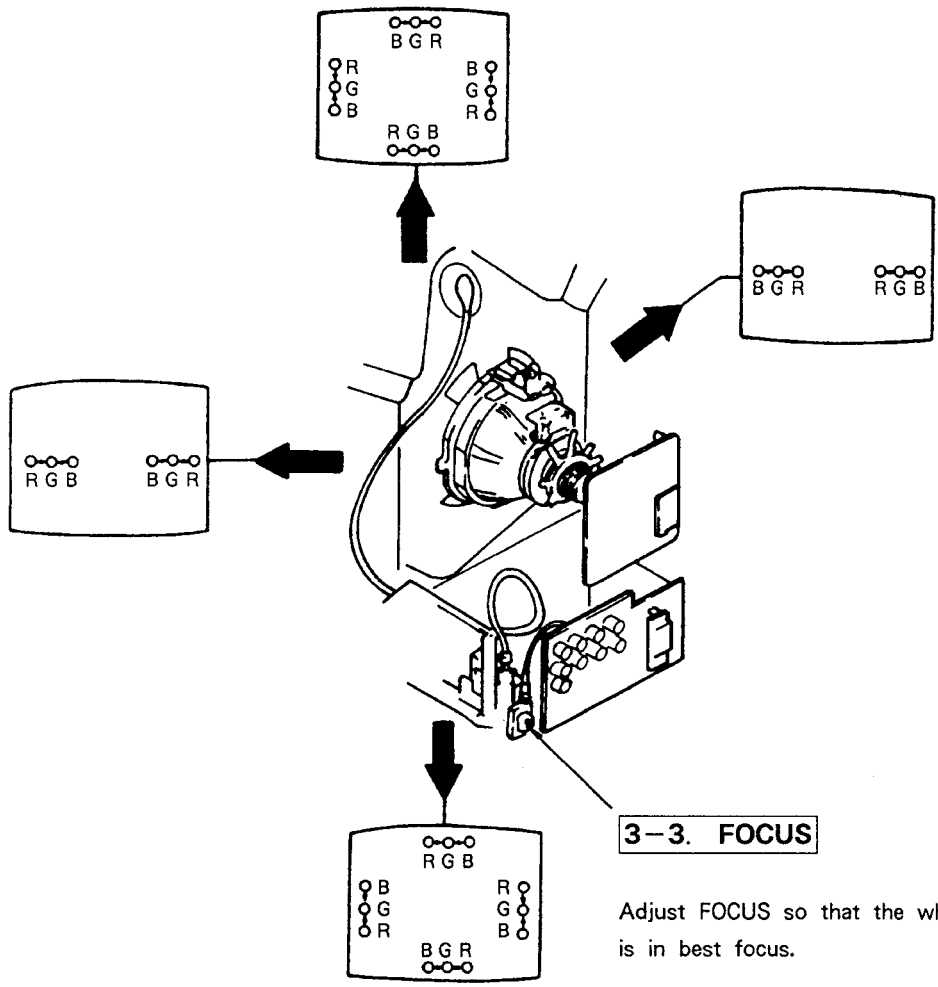


(2) **Dynamic Convergence Adjustment**

Preparation :

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

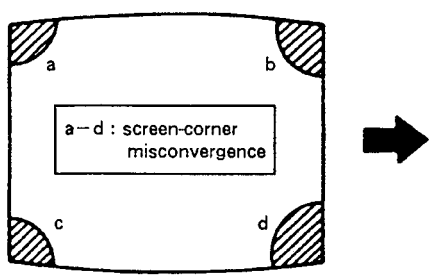
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

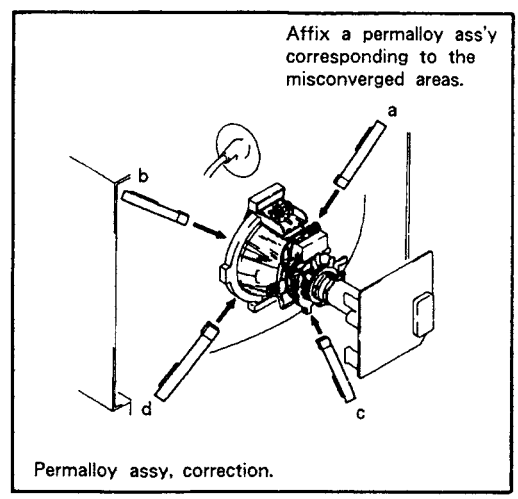


3-3. FOCUS

Adjust FOCUS so that the whole screen is in best focus.

(3) **Screen-corner Convergence**





3-4. WHITE BALANCE

[Screen (G2) Setting]

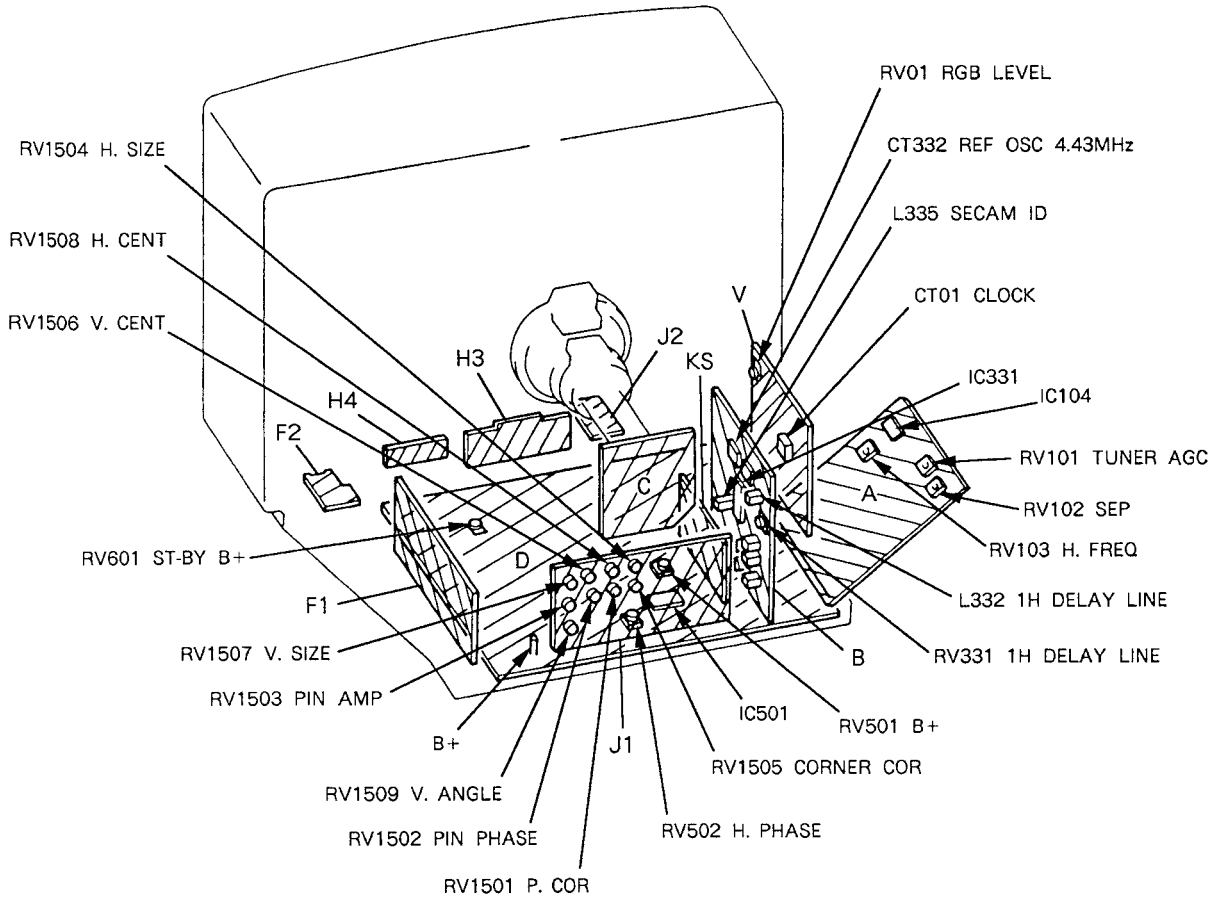
1. Input dot signals from the pattern generator.
2. Set the picture BRIGHTNESS control to the minimum level.
3. Apply 170 V dc to the cathodes of R, G, and B from an external power source.
4. While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.

[White Balance Adjustment]

1. Input all-white signals from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the white balance using RV704 (B DRIVE) and RV703 (G DRIVE).

In the following adjustments, the CONTRAST COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

SECTION 4
CIRCUIT ADJUSTMENTS



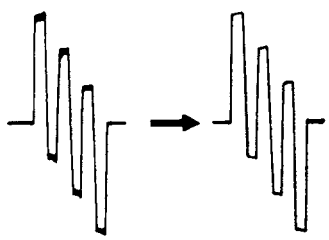
4−1. B BOARD ADJUSTMENTS

REF OSC Adjustment (CT332)

1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑰ of IC331 and ground.
3. Adjust CT332 to obtain color synchronization.
4. Remove the jumper wire from IC331.

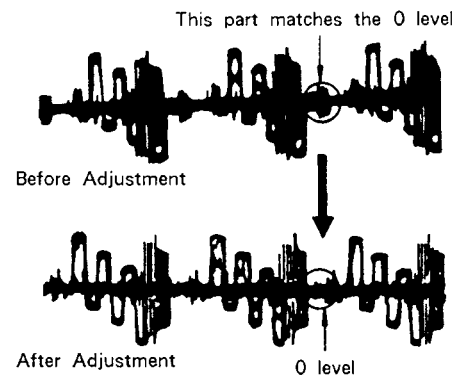
1H DELAY LINE Adjustment (L332, RV331)

1. Input a PAL COLOR BAR pattern.
2. Connect the oscilloscope to pin ③ (B-Y) of IC331 and observe the waveform of the H block on the oscilloscope.
3. Adjust L332 to minimize the double waveform outline.



Before Adjustment After Adjustment

4. Input a PAL TEST COLOR BAR pattern.
5. Rotate the RV331 VR and adjust till the ANTI-PAL part of the waveform matches the 0 level.



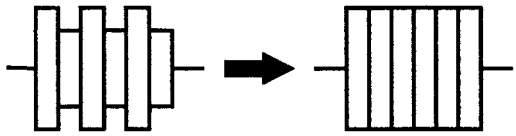
6. L332 and RV331 affect each other. So repeat till the conditions of both are met.

SECAM ID Adjustment (L335)

1. Input a SECAM COLOR BAR pattern.
2. Connect a Digital Multimeter to pin ㉑ of IC331.
3. Adjust L335 so that the indicator goes up to the maximum.

BELL FILTER Adjustment (T331)

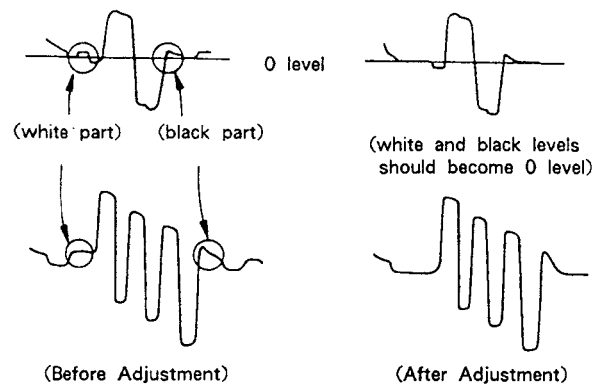
1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to the Q335 emitter.
3. Adjust T331 so that the waveform becomes flat.



Before Adjustment After Adjustment

SECAM DISCRI Adjustment (L333, L334)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to pin ① of IC331.
3. Adjust L333 so that white and black parts of the waveform of pin ① becames 0 level.
4. Connect an oscilloscope to pin ③ of IC331.
5. Adjust L334 so that white and black parts of the waveform of pin ③ becomes 0 level.



4−2. D BOARD ADJUSTMENTS

B+ Adjustment (RV501)

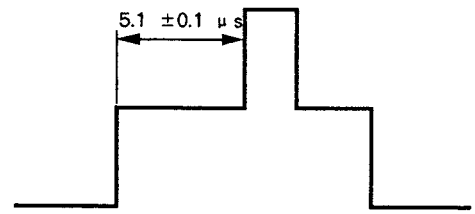
1. Connect a Digital Multimeter to TP91.
2. Adjust RV501 so that the voltage becomes 135 ±0.2 V.

ST-BY B+ Adjustment (RV601)

1. Set up ⏻standby (Remote Commander) mode.
2. Connect the Digital Multimeter to TP91.
3. Adjust RV601 so that the voltage becomes 135 ±3 V.
4. Release the ⏻standby (Remote Commander) mode.

H. PHASE Adjustment (RV502)

1. Input a PAL TEST COLOR BAR pattern.
2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
3. Set RV1508 (H. CENT) to the mechanical center position.
4. Connect an oscilloscope to pin ⑪ (SPC OUT) of IC501.
5. Rotate RV502 and adjust Block T to 5.1 ±0.1 μs.



4−3. A BOARD ADJUSTMENTS

TUNER AGC Adjustment (RV101)

1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

STEREO SEPARATION Adjustment (RV102)

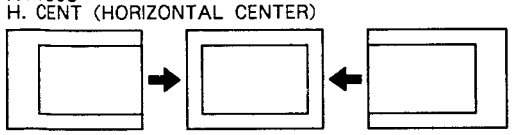
1. Input stereo signals. (L-CH 1 kHz, R-CH 400 Hz)
2. Check the stereo indicator.
3. Connect an oscilloscope to pin ① (L) of CNA11 through band pass filter of 1 kHz.
4. Adjust RV102 so that 1 kHz voltage goes down to the minimum.

H. FREQ Adjustment (RV103)

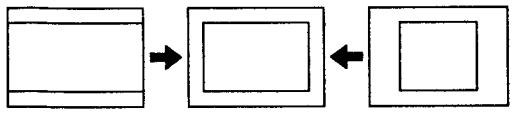
1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑫ of IC104 and ground.
3. Connect a frequency counter to pin ⑥ of IC104 through a probe of 10 : 1.
4. Adjust RV103 so that H. frequency becomes 15,625 ±50 Hz.

4-4. J1 BOARD ADJUSTMENTS

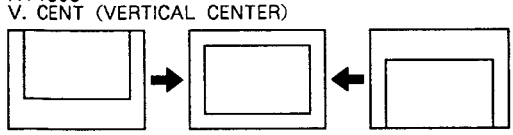
RV1508
H. CENT (HORIZONTAL CENTER)



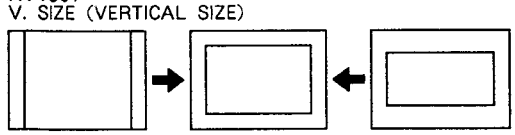
RV1504
H. SIZE (HORIZONTAL SIZE)



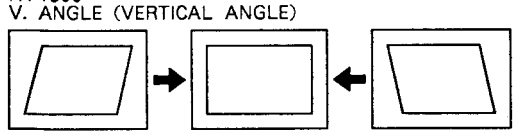
RV1506
V. CENT (VERTICAL CENTER)



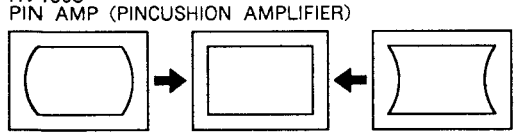
RV1507
V. SIZE (VERTICAL SIZE)



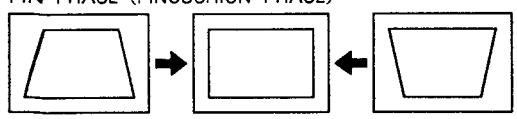
RV1509
V. ANGLE (VERTICAL ANGLE)



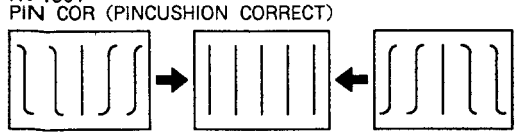
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



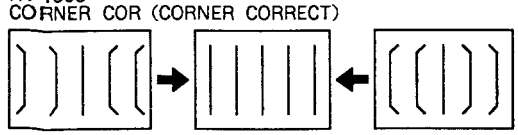
RV1502
PIN PHASE (PINCUSHION PHASE)



RV1501
PIN COR (PINCUSHION CORRECT)



RV1505
CORNER COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS

Clock Adjustment (CT01)

1. Disconnect the V-1 connector.
2. Set up the TELE TEXT mode.
3. Adjust CT01 to stop pictures from scrolling.

RGB Level Adjustment (RV01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes 0.75 V.

4-6. SUB ADJUSTMENTS

SUB BRIGHTNESS Adjustment

1. Receive and display a TEST COLOR BAR pattern.
2. Push →・← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Reduce the ◑CONTRAST to the minimum level.
6. Adjust the ☼BRIGHTNESS control until the 0 IRE of the gray scale becomes completely cut off, and the 20 IRE becomes barely luminous.
7. Push the AFT button. (SUB mode is cleared)

Where no TEST COLOR BAR pattern is available.

1. Display a COLOR BAR pattern.
2. Push →・← on the remote commander to invoke the normal state.
   Set the ✇COLOR to normal mode.

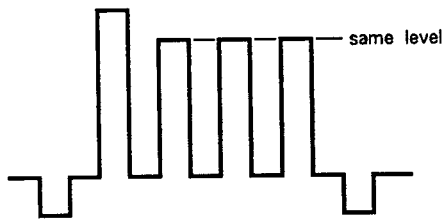
Steps 3 – 5 are the same as above.

6. 20 IRE is close to blue, so adjust the ☼BRIGHTNESS control till blue is faintly luminous.
7. Same as Step 7 above.
8. Push →・← on the remote commander to invoke the normal state.

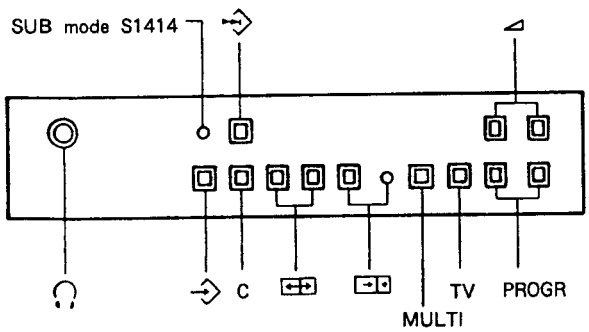
* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S is displayed only for 30 seconds, perform the adjustment within 30 seconds, or repeat from Step 4.

SUB COLOR Adjustment

1. Display a COLOR BAR pattern.
2. Push →• ← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Adjust the COLOR control until the B out (pin ②of CNC72 connector on C board) waveform becomes as shown below.
6. Push the AFT button. (SUB mode is cleared.)

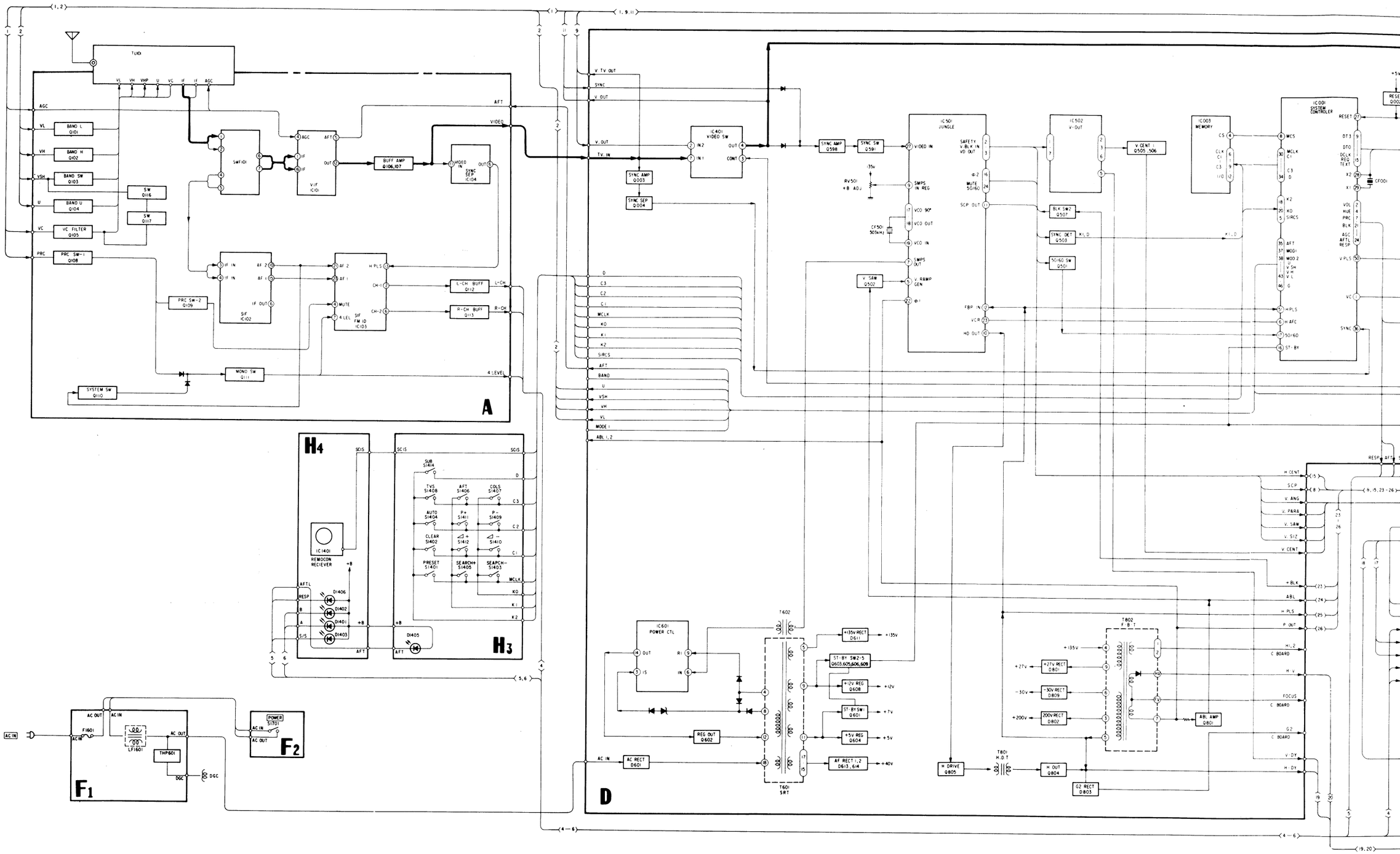


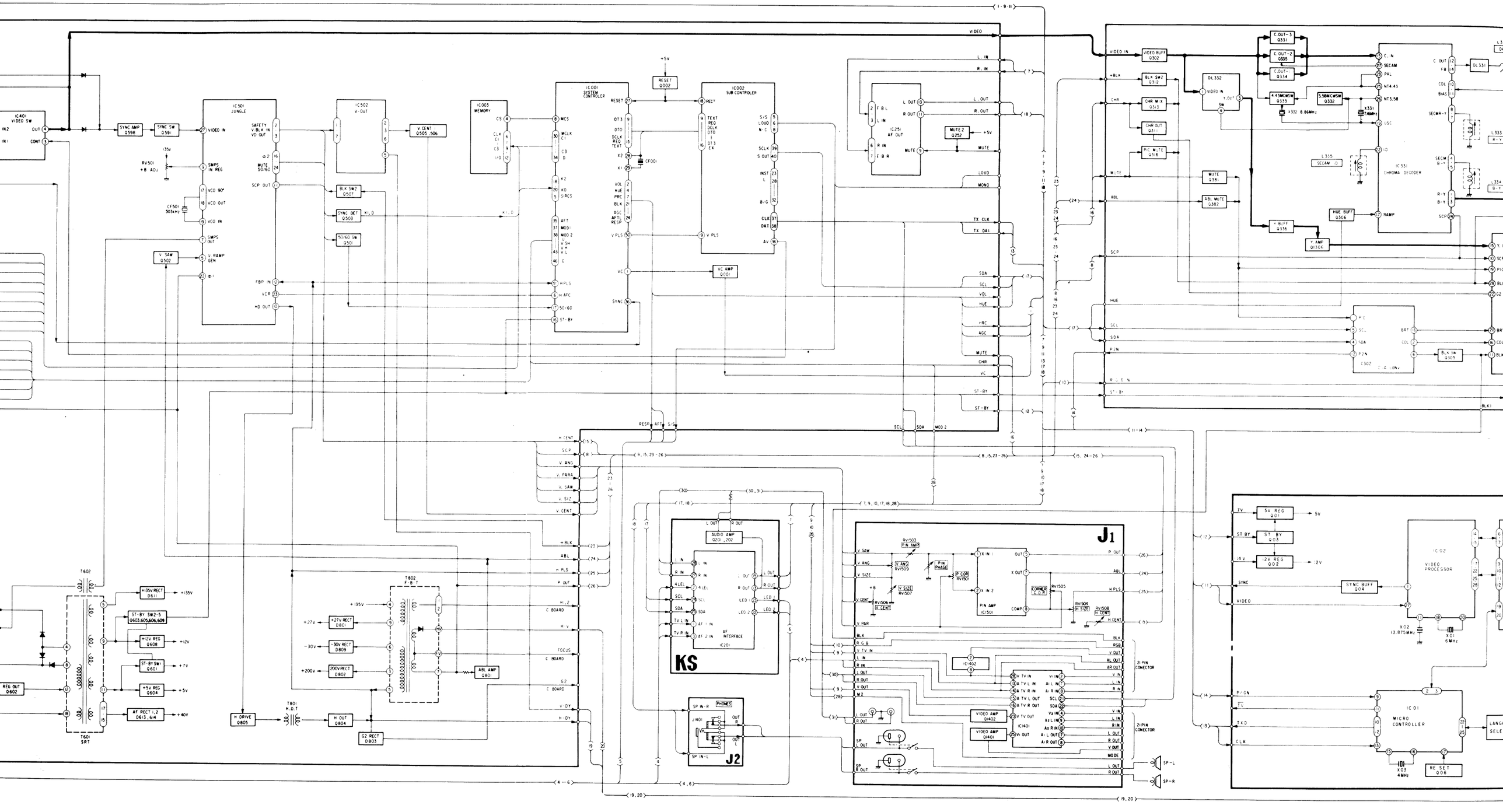
* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S (SUB mode) is displayed only for 30 seconds, perform the adjustment with 30 seconds, or repeat from Step 4.

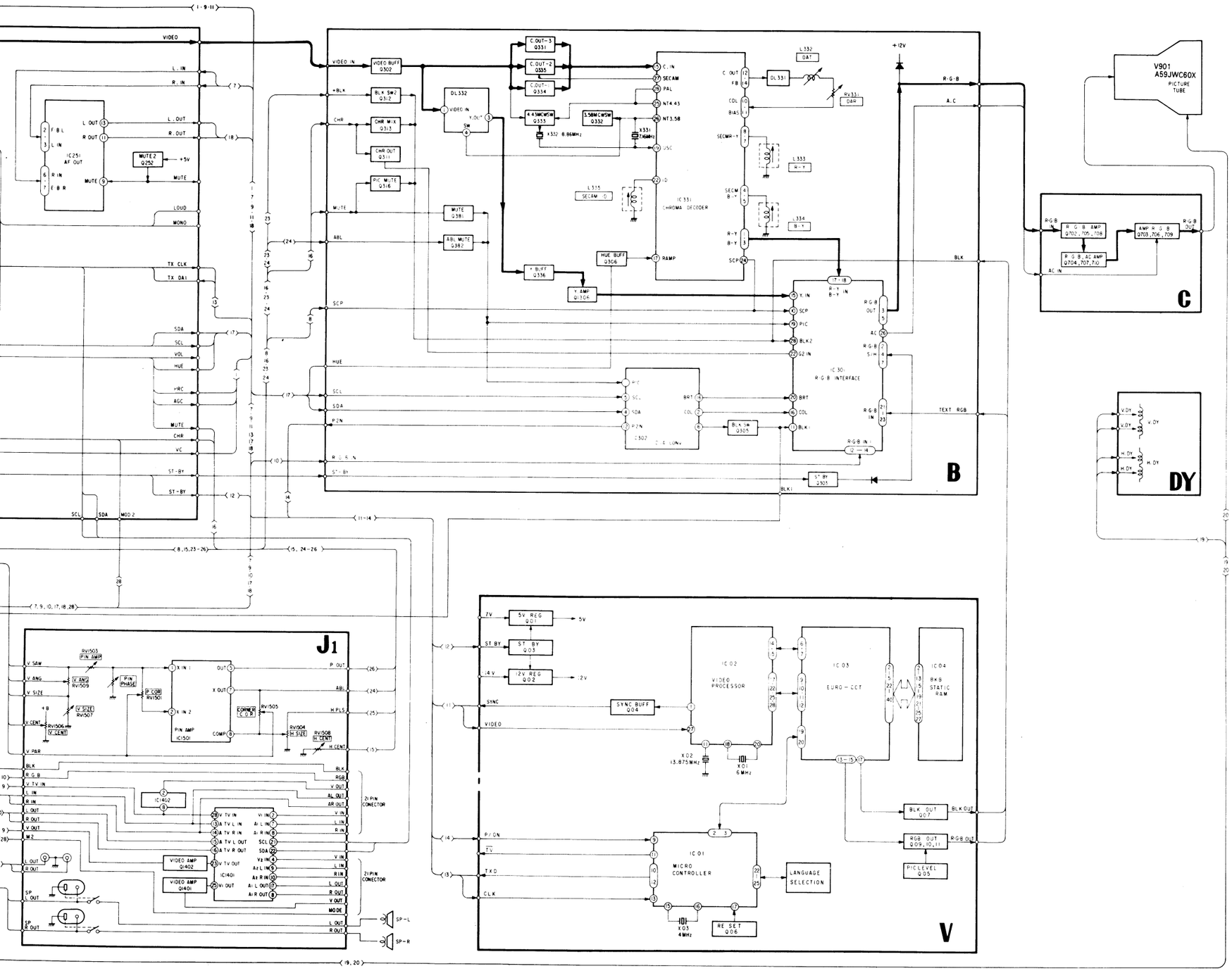


SECTION 5
DIAGRAMS

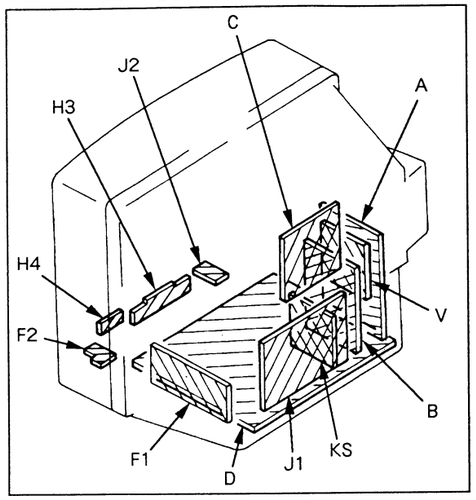
5-1. BLOCK DIAGRAM




IC401 VIDEO SW
SYNC AMP Q598
SYNC SW Q591
IC501 JUNGLE
IC502 V-OUT
V. CENT Q505, 506
IC003 MEMORY
IC0001 SYSTEM CONTROLLER
RESET Q002
IC002 SUB CONTROLER
VIDEO
L. IN
R. IN
IC251 AF OUT
MUTE 2 Q252
LOUD
MONO
TX CLK
TX DAT
SDA
SCL
VOL
HUE
HRC
AGC
MUTE
CHR
VC
ST-BY
VIDEO IN
VIDEO BUFF Q302
BLK SW2 Q312
CHR MIX Q313
CHR OUT Q311
PIC MUTE Q316
MUTE Q381
ABL MUTE Q382
DL332
C.OUT-3 Q331
C.OUT-2 Q335
C.OUT-1 Q334
4.43MCWSW Q333
3.58MCWSW Q332
X332 8.86MHz
X331 7.16MHz
L315 SECAM ID
IC331 CHROMA DECODER
HUE BUFF Q306
Y BUFF Q316
Y AMP Q1506
DL331
L331 R-Y
L334 B-Y
SCP
ABL
+BLK
BLK
RGB
V OUT
AL OUT
AR OUT
V IN
L IN
R IN
2I PIN CONECTOR
IC1402
VIDEO AMP Q1402
VIDEO AMP Q1401
IC1401
MODE
L OUT
R OUT
SP-L
SP-R
J1
KS
J2
AUDIO AMP Q201, 202
IC201 AF INTERFACE
PHONES
J1401
SP IN-R
SP IN-L
RV503 PIN AMP
V ANG RV1509
PIN PHASE
P COR RV1501
V SIZE RV1507
RV1506 V CENT
RV1505 CORNER C.R
RV1504 H SIZE
RV1508 H CENT
PIN AMP IC1501
P. OUT
ABL
H.PLS
H.CENT
V PAR
+B
COMP
5V REG Q01
ST BY Q03
12V REG Q02
SYNC BUFF Q04
IC02 VIDEO PROCESSOR
X02 13.875MHz
X01 6MHz
IC01 MICRO CONTROLLER
X03 4MHz
RESET Q06
P/ON
TV
T.X.D
CLK
T602
T601 SRT
+135V RECT D611
ST-BY SW2-5 D603,605,606,609
+12V REG Q608
ST-BY SW Q601
+5V REG Q604
AF RECT 1,2 D613,614
REG OUT Q602
+135V
+12V
+7V
+5V
+40V
V. SAW Q502
RV501 +B ADJ
SMPS IN REG
VCO 90°
VCO OUT
VCO IN
SMPS OUT
V. RAMP GEN
CF501 503kHz
SAFETY V.BLK IN VD OUT
MUTE 50/60
SCP OUT
BLK SW2 Q507
SYNC DET Q503
50/60 SW Q501
FBP IN
VCR
HD OUT
H DRIVE Q805
T801 H.D.T
H OUT Q804
G2 RECT D803
T802 F.B.T
+27V RECT D801
-30V RECT D809
200V RECT D802
ABL AMP Q801
CF001
H CENT
SCP
V. ANG
V. PARA
V. SAW
V. SIZ
V. CENT
+BLK
ABL
H PLS
P OUT
H.2 C BOARD
H.V
FOCUS C BOARD
G2 C BOARD
V-DY
H-DY


VIDEO
L. IN
R. IN
IC251 AF OUT
MUTE2 Q252
+5V
MUTE
LOUD
MONO
TX CLK
TX DAT
SDA
SCL
VOL
HUE
PRC
AGC
MUTE
CHR
VC
ST-BY
SCL
SDA
MOD 2
VIDEO IN
VIDEO BUFF Q302
+BLK
BLK SW2 Q312
CHR
CHR MIX Q313
CHR OUT Q311
PIC MUTE Q316
MUTE
ABL
MUTE Q381
ABL MUTE Q382
DL332
C.OUT-3 Q331
C.OUT-2 Q335
C.OUT-1 Q334
4.43MCWSW Q333
3.58MCWSW Q332
X331 7.16MHz
X332 8.86MHz
L335 SECAM ID
IC331 CHROMA DECODER
C.IN
SECAM
PAL
NT4.43
NT3.58
OSC
ID
RAMP
HUE BUFF Q306
Y BUFF Q336
Y AMP Q1304
L332 DAT
DL331
RV331 DAH
L333 R-Y
L334 B-Y
+12V
R-G-B
A.C
BLK
TEXT RGB
IC301 R-G-B INTERFACE
Y. IN
SCP
PIC
BLK2
G2 IN
BRT
COL
BLK1
BLK SW Q305
R-G-B IN
ST-BY 2303
B
V901 A59JWC60X PICTURE TUBE
R-G-B AMP Q702,705,708
R-G-B AC AMP Q704,707,710
AMP R-G-B Q703,706,709
AC IN
C
V.DY
H.DY
DY
J1
V SAW
V ANG
V SIZE
V CENT
V PAR
RV1503 PIN AMP
RV1509
RV1507
RV1506
P COR RV1501
PIN PHASE
PIN AMP IC1501
CORNER COR
RV1505
RV1504 SH SIZE
RV1508 H CENT
P OUT
ABL
H PLS
H CENT
BLK
R G B
V TV IN
L IN
R IN
L OUT
R OUT
V OUT
M2
IC1402
IC1401
VIDEO AMP Q1402
VIDEO AMP Q1401
21 PIN CONECTOR
MODE
SP L OUT
SP R OUT
SP-L
SP-R
7V
5V REG Q01
5V
ST BY
ST BY Q03
12V REG Q02
12V
4V
SYNC
VIDEO
SYNC BUFF Q04
IC02 VIDEO PROCESSOR
IC03 EURO-CCT
IC04 8KB STATIC RAM
X02 13.875MHz
X01 6MHz
P/ON
TV
TXD
CLK
IC01 MICRO CONTROLLER
LANGUAGE SELECTION
RESET Q06
X03 4MHz
BLK OUT Q07
RGB OUT Q09,10,11
PIC LEVEL Q05
BLK OUT
RGB OUT
V

5-2. CIRCUIT BOARDS LOCATION



Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4W

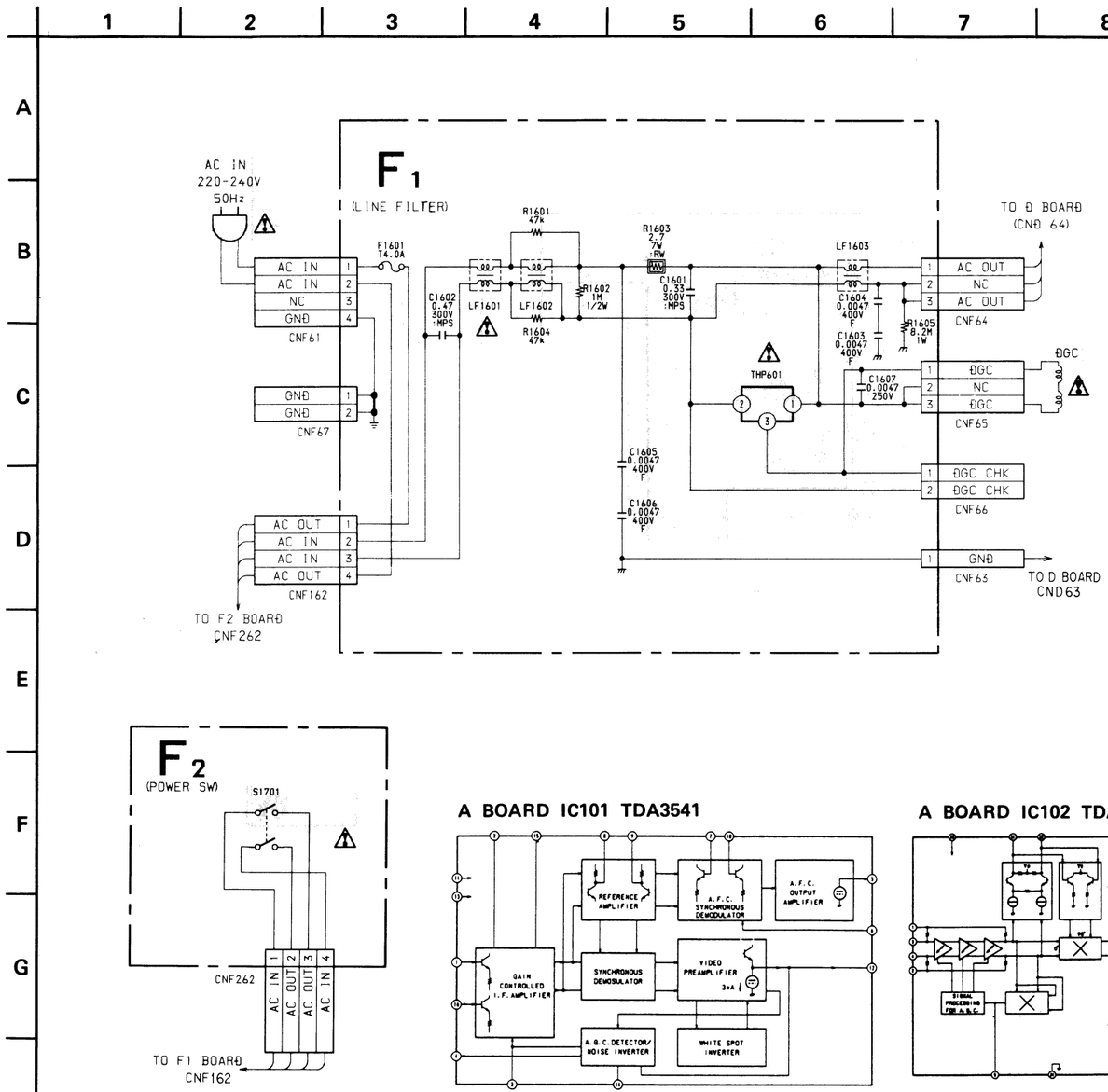
- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B− bus.
- : signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

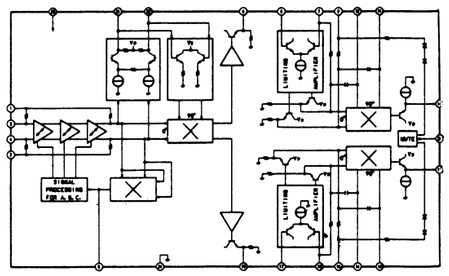
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

5-3. SCHEMATIC DIAGRAMS

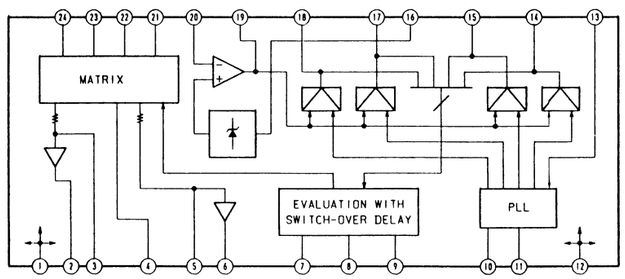


A BOARD IC101 TDA3541

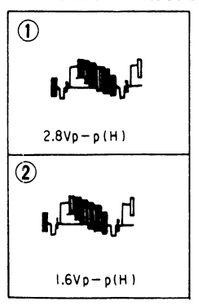
A BOARD IC102 TDA2556



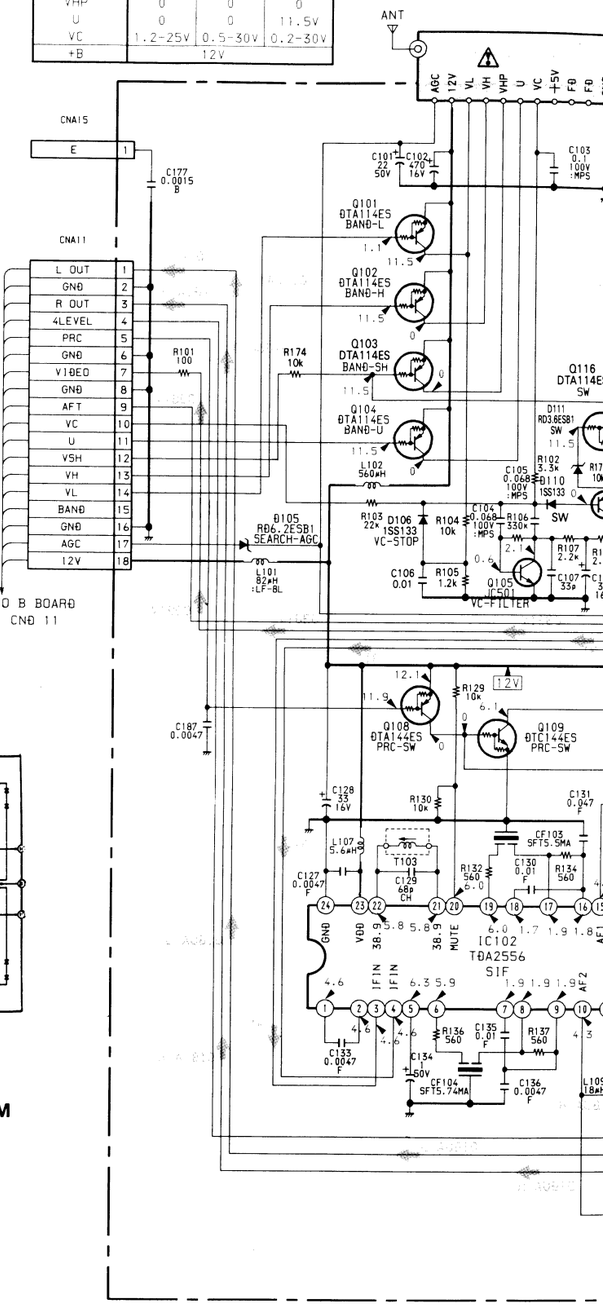
A BOARD IC103 TDA6600



• A BOARD WAVEFORM



TUNER / BAND	VHF LOW	VHF HIGH	UHF
AGC	6.1-9V		
VL	11.5V	0	0
VH	0	11.5	0
VHP	0	0	0
U	0	0	11.5V
VC	1.2-25V	0.5-30V	0.2-30V
+B	12V		



TU101 \ BAND	VHF LOW	VHF HIGH	UHF
AGC	6.1-9V		
VL	11.5V	0	0
VH	0	11.5	0
VHP	0	0	0
U	0	0	11.5V
VC	1.2-25V	0.5-30V	0.2-30V
+B	12V		

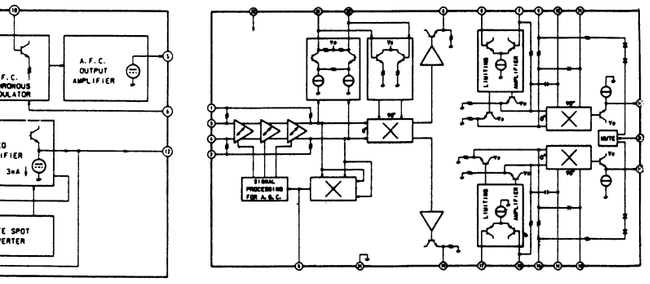
TO D BOARD (CND 64)

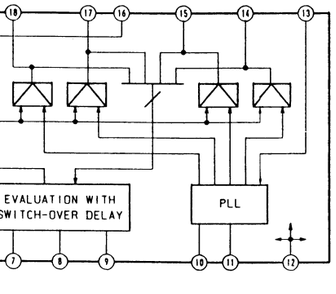
LF1603
C1604 0.0047 400V F
C1603 0.0047 400V F
R1605 8.2M 1W
THP601
C1607 0.0047 250V
CNF64: 1 AC OUT, 2 NC, 3 AC OUT
CNF65: 1 DGC, 2 NC, 3 DGC
CNF66: 1 DGC CHK, 2 DGC CHK
CNF63: 1 GND
TO D BOARD CND63

ANT
TU101 UV615
AGC 12V VL VH VHP U VC +5V FB GND IF IF
L113 1.5uH
CNA15: E 1
C177 0.0015 B
CNA11: L OUT 1, GND 2, R OUT 3, 4LEVEL 4, PRC 5, GND 6, VIDEO 7, GND 8, AFT 9, VC 10, U 11, VSH 12, VH 13, VL 14, BAND 15, GND 16, AGC 17, 12V 18
TO B BOARD CND 11
C101 22 50V, C102 470 16V, C103 0.1 100V :MPS
Q101 DTA114ES BAND-L
Q102 DTA114ES BAND-H
Q103 DTA114ES BAND-SH
Q104 DTA114ES BAND-U
L102 560uH
R101 100, R174 10k
D105 RD6.2ESB1 SEARCH-AGC
L101 82uH :LF-BL
Q116 DTA114ES SW
D111 RD3.6ESB1 SW
C105 0.068 100V :MPS, R102 3.3k, R175 10k, D110 1SS133, Q117 JA101 SW
D106 1SS133 VC-STOP, R104 10k, C104 0.068 100V :MPS, R106 330k, SW
R103 22k, C106 0.01, R105 1.2k, Q105 IC501 VC-FILTER, R107 2.2k, R108 2.2k, C107 33p, C108 33 16V
SWF101
C109 0.0047 F, C110 1 50V, R109 3.3k, C112 0.0047 F
IC101 TDA3541 VIF
C111 0.0047 F, R110 270, CF101 TRAP 5.5MHz, L104 15uH, R111 1.2k, Q106 JC501 BUFF-AMP, R112 2.2k, R115 470, L106 33uH, R116 1.5k, R114 470, C118 47p, C119 100 16V, R117 15k, R119 1k, R118 4.7k, Q107 JA101 BUFF-AMP
C113 0.0047 F, C114 33 +16V, L103 5.6uH
C124 68p CH, T101, C125 68p CH, T102
C120 2.2 50V, C121 0.0047 F, C122 0.0047 F, C123 0.0047 F
R125 10k, R121 10k, R122 39k, R128 18k, RV101 47k TV AGC, R127 18k, R124 3.3k, R126 39k
(12V)
Q108 DTA144ES PRC-SW, R129 10k, Q109 DTC144ES PRC-SW
C187 0.0047
C128 33 16V, R130 10k, C131 0.047 F, C132 1 50V
L107 5.6uH, T103, CF103 SFT5.5MA, C129 68p CH, C130 0.01 F, R132 560, R134 560
C127 0.0047 F, C133 0.0047 F, C134 1 50V, CF104 SFT5.74MA, C135 0.01 F, R136 560, C136 0.0047 F, R137 560
L108 18uH, CB102 5.5MHz, R135 1.5k, R188 1.5k, R138 1.5k, CB103 5.74MHz, R189 1.5k, L109 18uH, C174 50V
IC102 TDA2556 SIF
C139 10 50V, C143 150p, RV102 10k SEPARATION, C148 10 50V, L111 100uH
C140 0.001 100V :PT, R144 2.7k, L112 2.7uH, C142 120p
C141 0.0033 100V 2%PP, C144 47 16V, C145 47 16V, C146 47 16V, C147 47 16V
IC103 TDA6600-2 SIF, FMID
C164 0.01 400V :MPS, R155 12k, H FREQ, RV103 47k, C167 1 50V, C163 4.7 50V, R153 820, R154 100k, C165 0.0047 5%:MPS, R166 47k, R156 120k, C168 0.22 100V :MPS, C169 10 50V
IC104 TDA2595 SYNC-SEP
R148 470, Q113 JC501 AF-BUFF-R, R146 3.9k, R141 4.7k, C158 33 16V, R150 3.3k, C159 47 16V
R163 3.9k, R151 3.3k, C161 47 16V, Q112 JC501 AF-BUFF-L
C190 0.1 100V :MPS, C188 33 16V, R123 1k, C189 33 16V
D108 MC921 SYSTEM-SW, Q111 DTC144ES MONO-SW
R140 100k, R139 15k, C137 47p :ALC, Q110 JA101 SYSTEM-SW, C138 2.2 50V
A (SIGNAL. TUNER BAND SW)

D341 1SS133 FORCE SW
IC331 TDA4555 CHROMA-DECODER
C334 56p CH, C335 0.047 F, L339 4.7uH, C331 33 16V, C332 33 16V, BL331, C337 0.01 F, L332, C333 0.022 F, R331 1.2k, R335 390, L331 8.2uH, C336 0.01 400V :MPS, BAT
R339 220, C349 0.47 50V 5%:MPS, C347, C346 0.001 B 50V, C348 1 50V, R337 5.1k
SECAM, NT4.43, PAL, NT3.58
Q306 JC501 HUE BUFF, Q306, R342 10k, Q332 DTC124ES 3.58M SW, CT331
R354 220, R355 3.3k
R359 47k, R361 1.2k, R360 47k, C358 33 16V
C322 68p, R324 5.6k, R327 6.8k, C325 47 50V, L304 10uH, C368 47p, R325 10k, R326 1.5k
B (Y. CHROMA)

A BOARD IC102 TDA2556

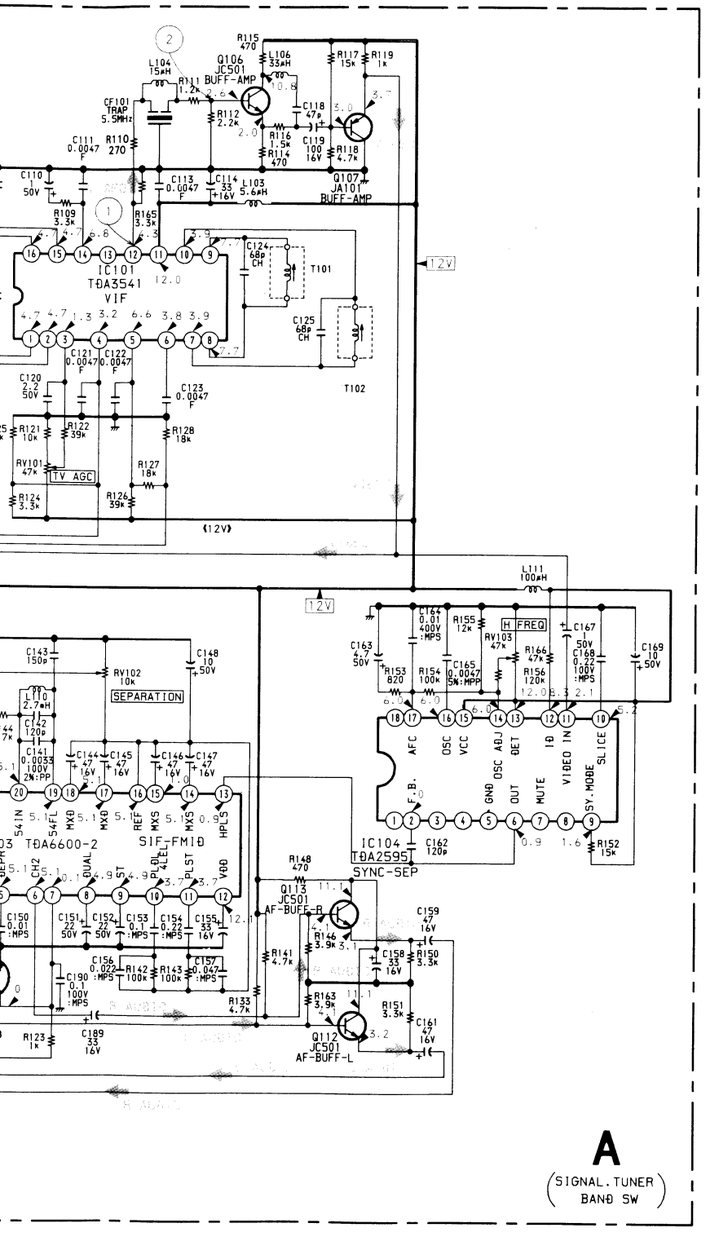


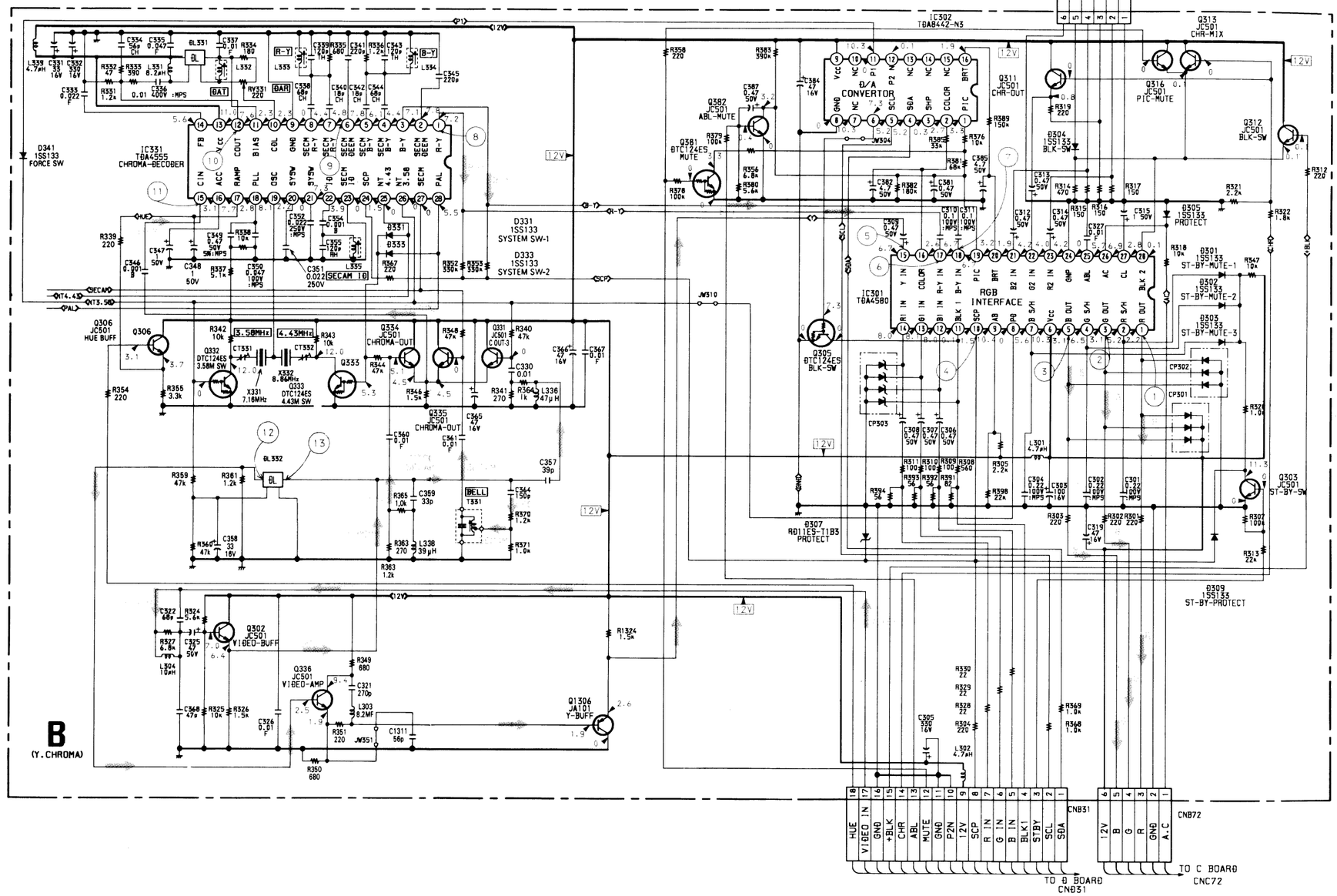


• A BOARD WAVEFORM

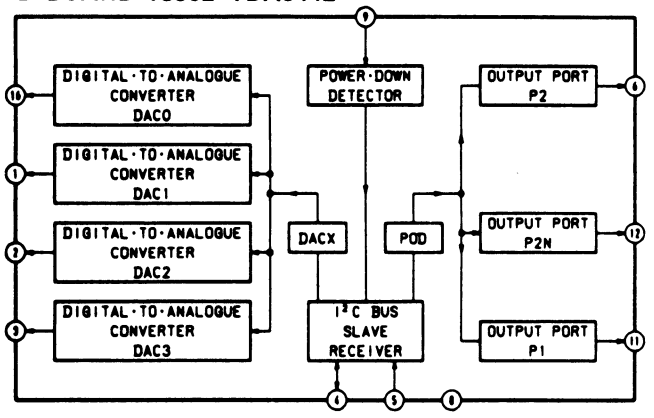
① 2.8Vp-p(H)

② 1.6Vp-p(H)

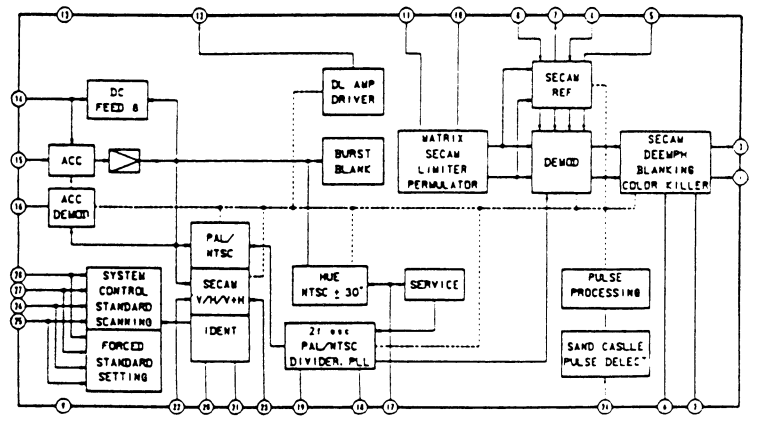

IC101
TDA3541
VIF
Q106
JC501
BUFF-AMP
Q107
JA101
BUFF-AMP
TV AGC
SEPARATION
IC102
TDA6600-2
SIF-FM/AM
IC104
TDA2595
SYNC-SEP
Q113
JC501
AF-BUFF-R
Q112
JC501
AF-BUFF-L
H FREQ
12V
A
(SIGNAL. TUNER
BAND SW)


IC331
TDA4555
CHROMA-DECODER
IC301
TDA4580
RGB
INTERFACE
IC302
TDA8442-N3
D/A
CONVERTOR
TO V BOARD
CNV3
CNB93
Q306
JC501
HUE BUFF
Q332
DTC124ES
3.58M SW
Q333
DTC124ES
4.43M SW
Q334
JC501
CHROMA-OUT
Q335
JC501
CHROMA-OUT
Q331
JC501
C-OUT-3
Q302
JC501
VIDEO-BUFF
Q336
JC501
VIDEO-AMP
Q1306
JA101
Y-BUFF
Q382
JC501
ABL-MUTE
Q581
DTC124ES
MUTE
Q311
JC501
CHR-OUT
Q313
JC501
CHR-MIX
Q316
JC501
PIC-MUTE
Q312
JC501
BLK-SW
Q305
DTC124ES
BLK-SW
Q303
JC501
ST-BY-SW
D341
1SS133
FORCE SW
D331
1SS133
SYSTEM SW-1
D333
1SS133
SYSTEM SW-2
D307
RD11ES-T1B3
PROTECT
D305
1SS133
PROTECT
D309
1SS133
ST-BY-PROTECT
D301
1SS133
ST-BY-MUTE-1
D302
1SS133
ST-BY-MUTE-2
D303
1SS133
ST-BY-MUTE-3
B
(Y. CHROMA)
CNB31
CNB72
TO B BOARD
CNB31
TO C BOARD
CNC72

B BOARD IC302 TDA8442



B BOARD IC331 TDA4555

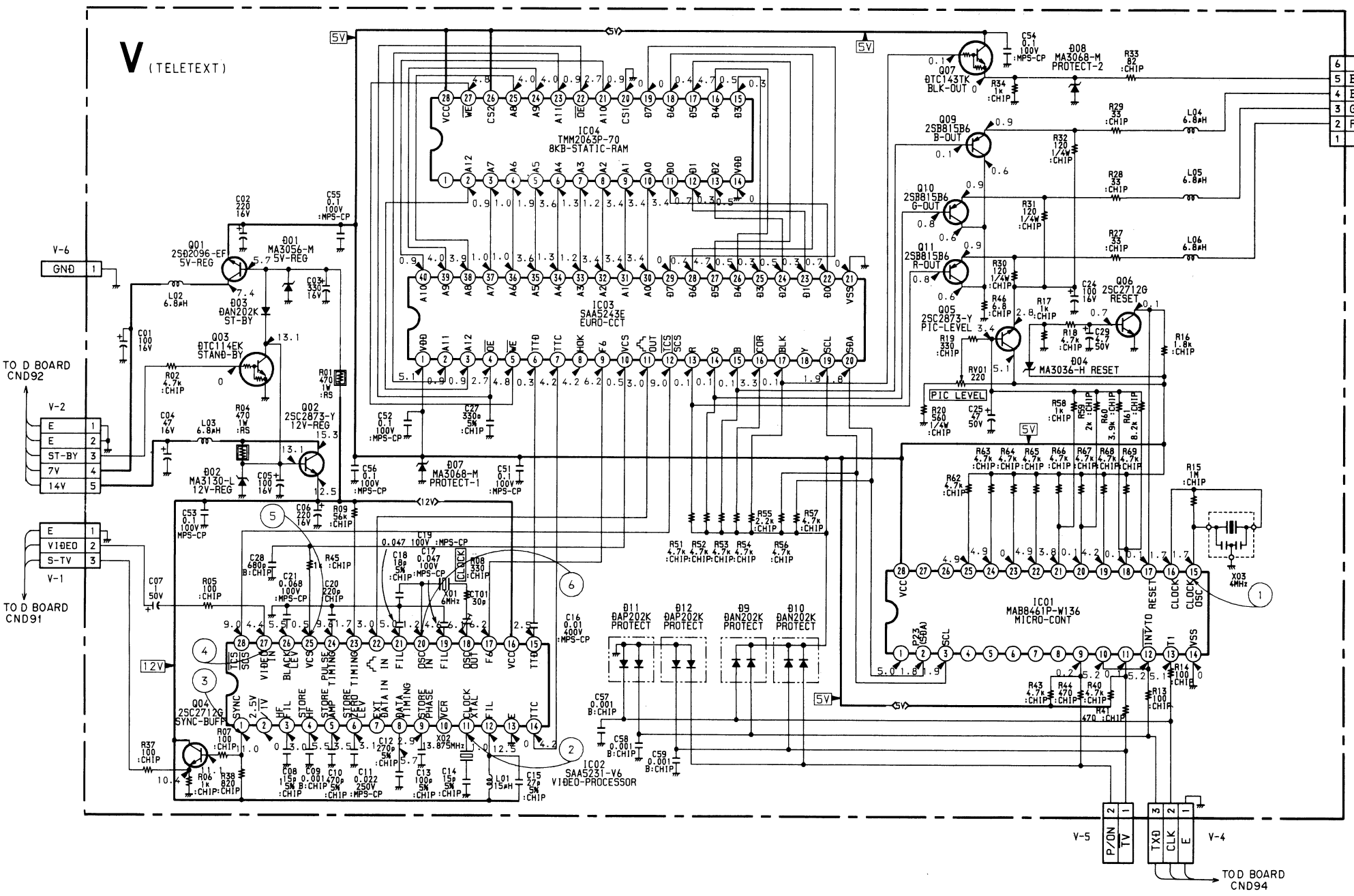


• B BOARD WAVEFORM

① 6Vp-p(H)	⑤ 0.4Vp-p(H)	⑨ 1.2Vp-p(H)	⑬ 1Vp-p(H)
② 6Vp-p(H)	⑥ 0.9Vp-p(H)	⑩ 1.5Vp-p(H)	
③ 6Vp-p(H)	⑦ 1.5Vp-p(H)	⑪ 0.16Vp-p(H)	
④ 10.5Vp-p(H)	⑧ 0.9Vp-p(H)	⑫ 0.4Vp-p(H)	

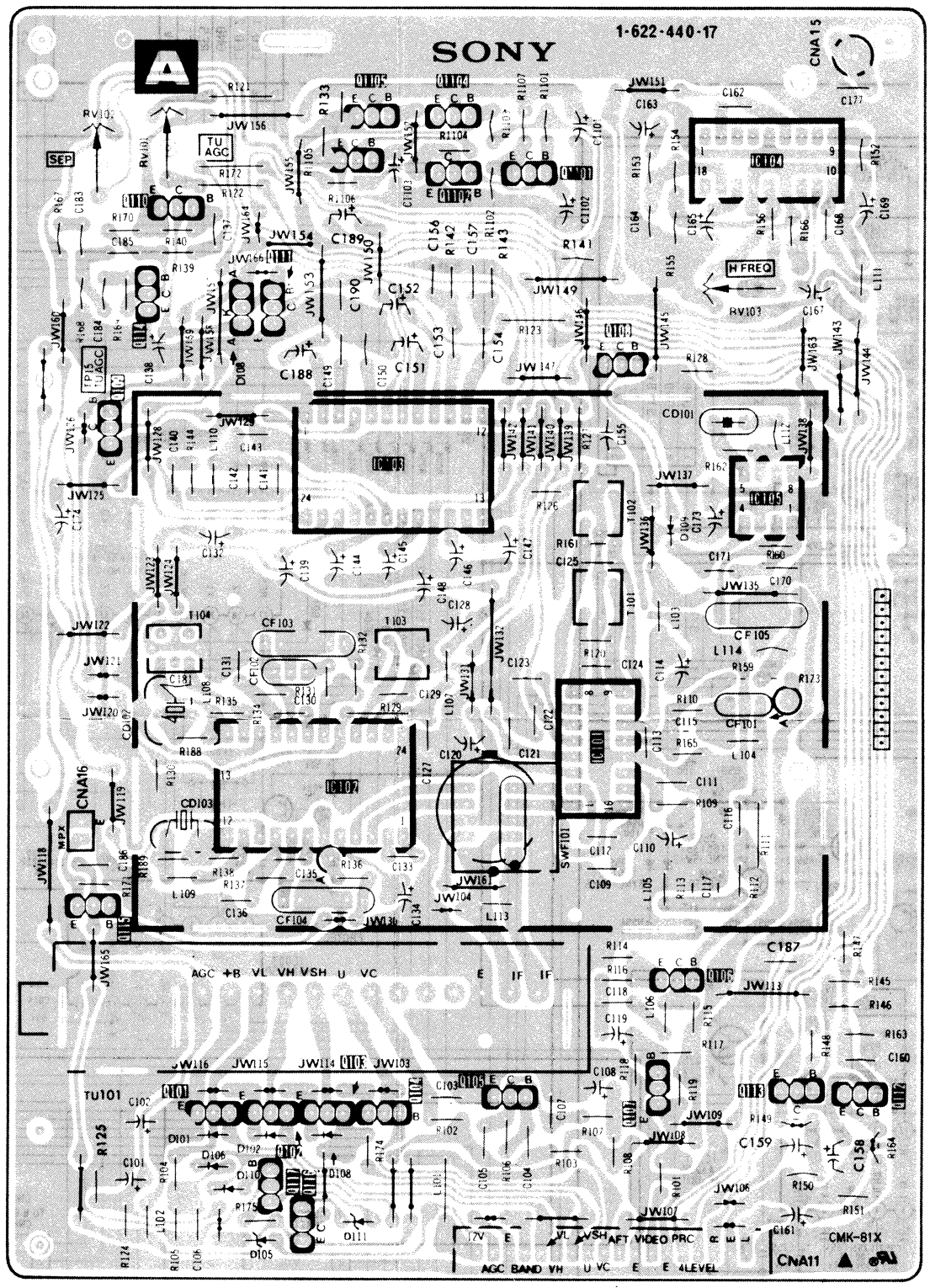
• V BOARD WAVEFORM

① 3.5Vp-p(4MHz)	④ 1Vp-p(H)
② 0.56Vp-p(8.75MHz)	⑤ 2.9Vp-p(H)
③ 1Vp-p(H)	⑥ 0.4Vp-p(6MHz)

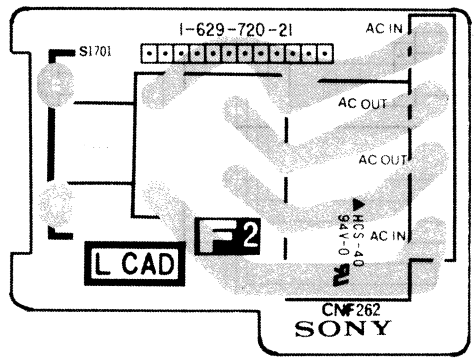


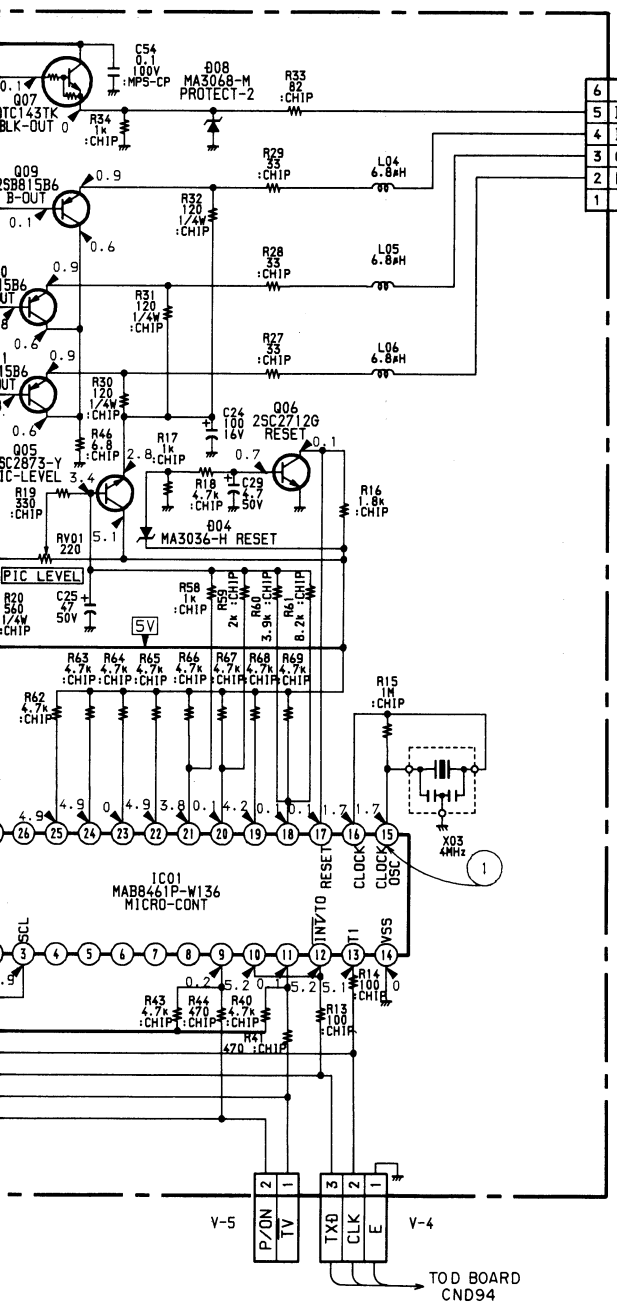
1.2Vp-p(H)	(13) 1Vp-p(H)
1.5Vp-p(H)	
0.16Vp-p(H)	
0.4Vp-p(H)	

— A Board —

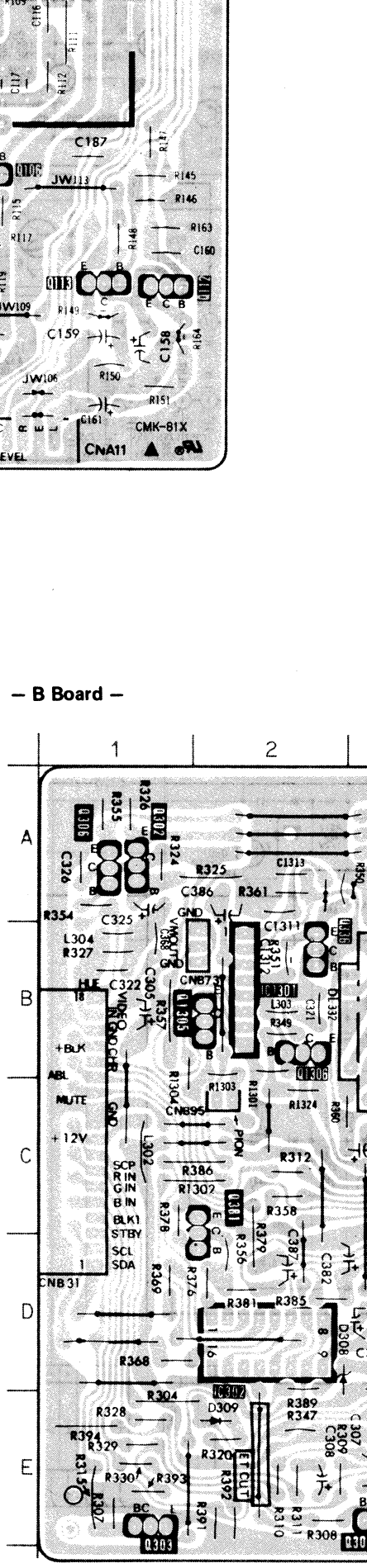


— F2 Board —





— B Board —



NAL TUNER,
ND SW, VIF, SIF]

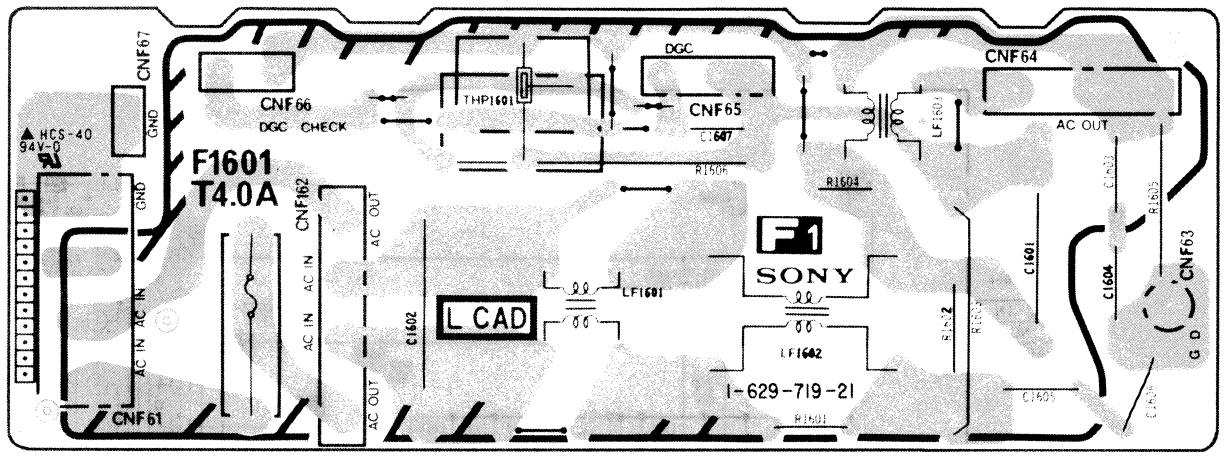
B [R·G·B INTERFACE, D/A CONVERTER, CHROMA DECODER]

F1 [LINE FILTER]

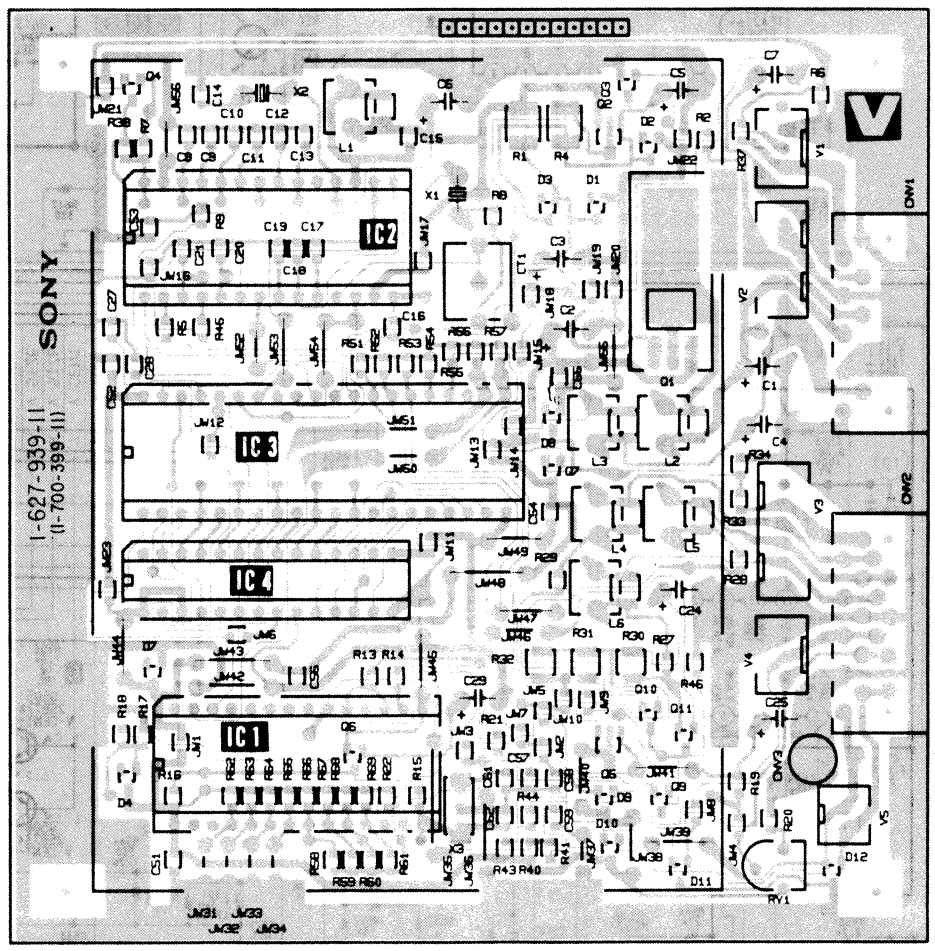
F2

V [TELETEXT]

– F1 Board –

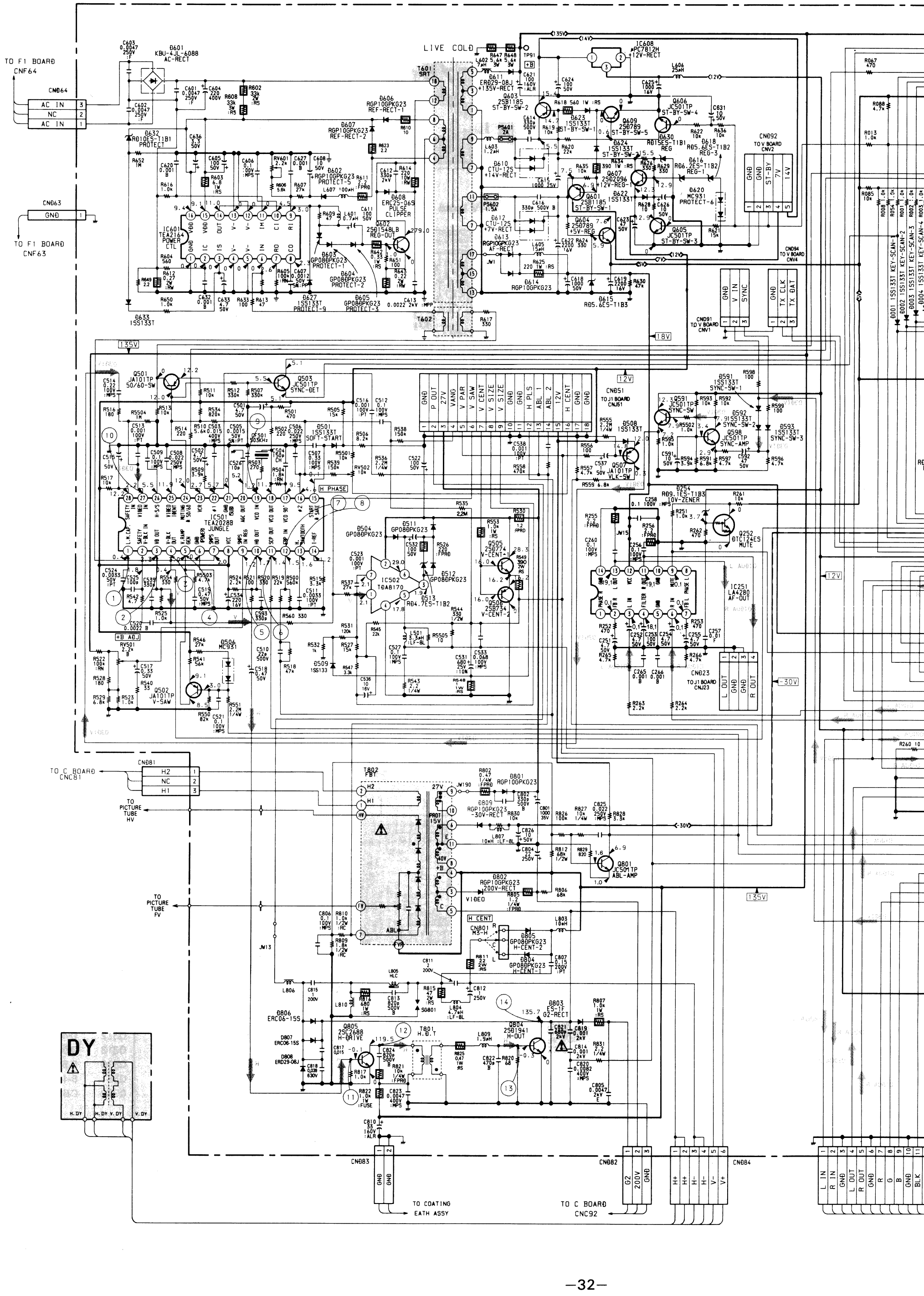


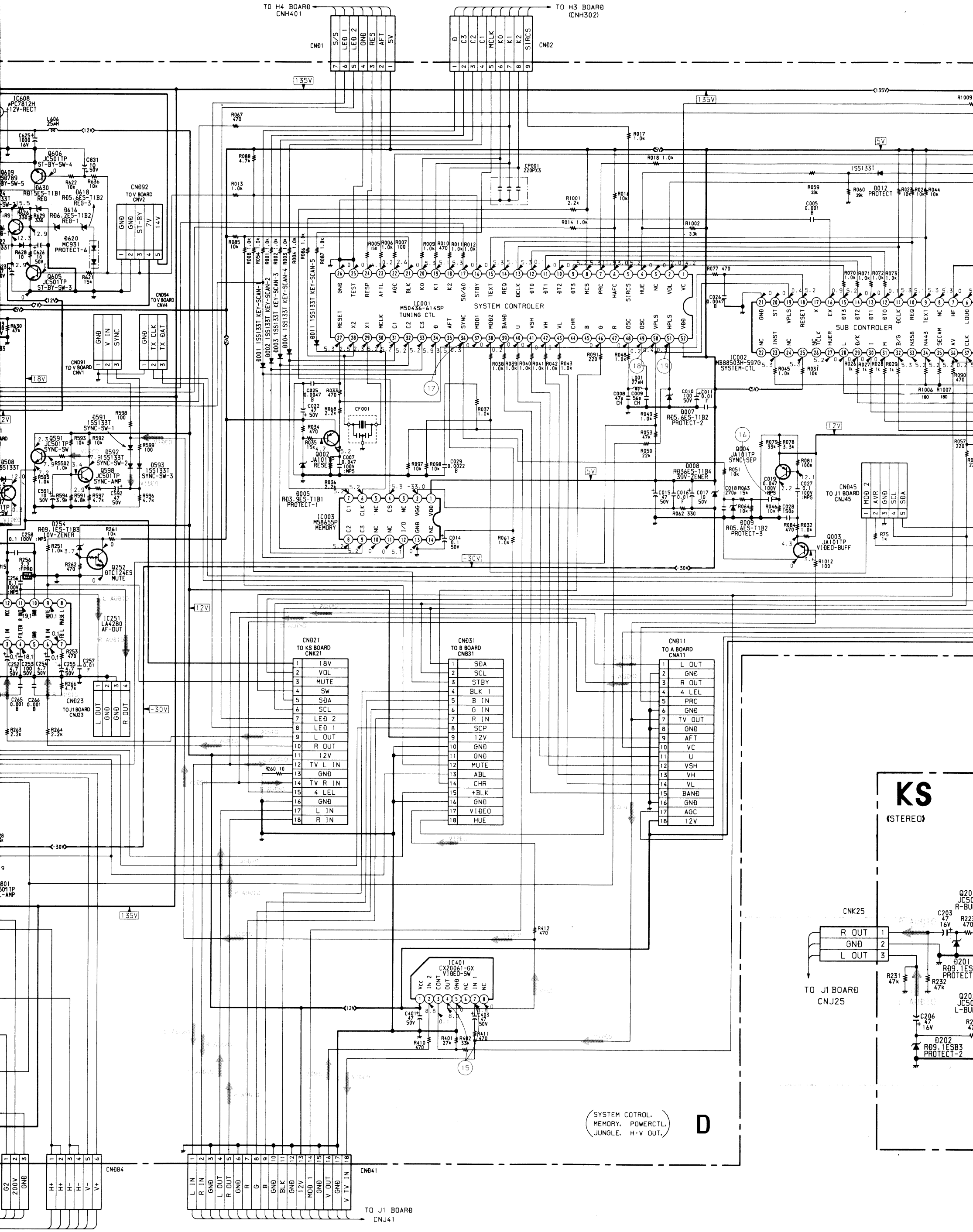
– V Board –



– B Board –

IC		DIODE	
IC301	E-4	D301	E-6
IC302	D-2	D302	E-5
IC331	B-5	D303	E-5
		D304	E-6
TRANSISTOR		D305	E-6
Q302	A-1	D307	E-3
Q303	E-1	D309	E-2
Q305	E-3	D331	C-4
Q306	A-1	D333	C-5
Q311	D-5	D341	C-5
Q312	D-4	VARIABLE RESISTOR	
Q313	D-5	RV331	A-6
Q316	D-5		
Q331	B-4	CT331	C-6
Q332	C-6	CT332	D-6
Q333	D-6		
Q334	B-3		
Q335	B-4		
Q336	B-2		
Q381	C-2		
Q382	C-3		
Q1316	B-2		


LIVE COLD
TO F1 BOARD CNF64
CN064
AC IN
NC
AC IN
CN063
GND
TO F1 BOARD CNF63
D601 KBU-4JL-6088 AC-RECT
D632 RD10ES-T1B1 PROTECT
D633 1SS133T
IC601 TEA2164 POWER CTL
D602 RGP10GPKG23 PROTECT-5
D603 GP08DPKG23 PROTECT-1
D604 GP08DPKG23 PROTECT-2
D605 GP08DPKG23 PROTECT-3
D606 RGP10GPKG23 REF-RECT-1
D607 RGP10GPKG23 REF-RECT-2
D608 ERC25-06S PULSE CLIPPER
D627 1SS133T PROTECT-9
Q602 2SD1548LB REG-OUT
T601 SRT
T602
D611 ER029-08J +135V-RECT
IC608 μPC7812H +12V-RECT
Q603 2SB1185 ST-BY-SW-2
Q609 2SD789 ST-BY-SW-5
Q606 JC501TP ST-BY-SW-4
D623 1SS133T ST-BY-SW-1
D624 1SS133T ST-BY-SW-2
D630 RD15ES-T1B1 REG
D610 CTU-12S +14V-RECT
Q607 2SD2096 +12V-REG-1
Q601 2SB1185 ST-BY-SW-1
D622 1SS133T
D618 RD5.6ES-T1B2 REG-3
D616 RD6.2ES-T1B2 REG-1
D620 MC931 PROTECT-6
Q605 JC501TP ST-BY-SW-3
D612 CTU-12S +7V-RECT
Q604 2SD789 +5V-REG
D613 RGP10GPKG23 AF-RECT
D614 RGP10GPKG23
D615 RD5.6ES-T1B3
CN092 TO V BOARD CNV2
GND GND ST-BY 7V 14V
CN094 TO V BOARD CNV4
CN091 TO V BOARD CNV1
GND V IN SYNC
GND TX CLK TX DAT
TO H4 CNH
135V
14V
12V
7V
5V
18V
-30V
Q501 JA101TP 50/60-SW
Q503 JC501TP SYNC-DET
Q502 JA101TP V-SAW
D501 1SS133T SOFT-START
D506 MC931
IC501 TEA2028B JUNGLE
H PHASE
D504 GP08DPKG23
D505 2SD774 V-CENT-1
D509 1SS133
D511 GP08DPKG23
D512 GP08DPKG23
D513 RD4.7ES-T1B2
IC502 TDA8170
Q506 2SB734 V-CENT-2
L501 3.3μH :LF-8L
CN051 TO J1 BOARD CNJ51
GND P OUT 27V VANG V PAR V SAW V CENT V SIZE V SIZE GND GND H PLS ABL 1 ABL 2 12V H CENT GND GND
D591 1SS133T SYNC-SW-1
D592 1SS133T SYNC-SW-2
D593 1SS133T SYNC-SW-3
Q591 JC501TP SYNC-SW
Q598 JC501TP SYNC-AMP
D508 1SS133T
Q507 JA101TP VLK-SW
D254 RD9.1ES-T1B3 10V-ZENER
Q252 DTC124ES MUTE
IC251 LA4280 AF-OUT
CN023 TO J1 BOARD CNJ23
L OUT GND GND R OUT
D001 1SS133T KEY-SCAN-1
D002 1SS133T KEY-SCAN-2
D003 1SS133T KEY-SCAN-3
D004 1SS133T KEY-SCAN-4
CN081
H2
NC
H1
TO C BOARD CNC81
TO PICTURE TUBE HV
TO PICTURE TUBE FV
T802 FBT
D801 RGP10GPKG23
D809 RGP10GPKG23 -30V-RECT
D802 RGP10GPKG23 200V-RECT
Q801 JC501TP ABL-AMP
D805 GP08DPKG23 H-CENT-2
D804 GP08DPKG23 H-CENT-1
CN801 M3-H
D806 ERC06-15S
D807 ERC06-15S
D808 ERD29-08J
Q805 2SC2688 H-DRIVE
T801 H.D.T
Q804 2SD1941 H-OUT
D803 ES-1F G2-RECT
DY
H.DY V.DY
CN083
GND GND
TO COATING EATH ASSY
CN082
G2 200V GND
TO C BOARD CNC92
CN084
H+ H+ H- H- V- V+
L IN R IN GND L OUT R OUT GND R G B GND BLK


TO H4 BOARD
CNH401
CN01
S/S
LED 1
LED 2
GND
RES
AFT
5V
TO H3 BOARD
(CNH302)
CN02
Ø
C3
C2
C1
MCLK
K0
K1
K2
SIRCS
135V
12V
5V
18V
-30V
IC608
μPC7812H
+12V-RECT
L606
25μH
C625
1000
16V
Q606
JC501TP
ST-BY-SW-4
C631
10
50V
R622
10k
R636
10k
ØD30
RØ15ES-T1B1
REG
ØD18
RØ5.6ES-T1B2
REG-3
ØD16
RØ6.2ES-T1B2
REG-1
ØD20
MC931
PROTECT-6
R624
330
R629
330
C626
10
50V
R628
10
R621
15k
Q605
JC501TP
ST-BY-SW-3
CN092
TO V BOARD
CNV2
GNØ
GNØ
ST-BY
7V
14V
CN094
TO V BOARD
CNV4
CN091
TO V BOARD
CNV1
GNØ
V IN
SYNC
GNØ
TX CLK
TX ØAT
R630
47k
C625
0.0047
B
C022
47
50V
R033
470
R068
2.2k
CF001
R034
470
R035
15k
Q002
JA101TP
RESET
C007
0.047
100V
MPS
R037
1.0k
R097
10k
R098
10k
C029
0.0022
B
ØD05
RØ3.9ES-T1B1
PROTECT-1
IC003
M58655P
MEMORY
C014
0.1
50V
R061
1.0k
R067
470
R088
4.7k
R013
1.0k
R085
10k
R008
1.0k
R054
1.0k
R001
1.0k
R002
1.0k
R003
1.0k
R004
1.0k
R086
1.0k
R087
1.0k
ØD01 1SS133T KEY-SCAN-1
ØD02 1SS133T KEY-SCAN-2
ØD03 1SS133T KEY-SCAN-3
ØD04 1SS133T KEY-SCAN-4
ØD11 1SS133T KEY-SCAN-5
R005
150
R006
1.0k
R007
100
R009
1.0k
R010
470
R011
1.0k
R012
1.0k
IC001
M50436-614SP
TUNING CTL
SYSTEM CONTROLER
RESET
X2
X1
MCLK
C1
C2
C3
Ø
AFT
SYNC
MOD1
MOD2
BANØ
U
VSH
VH
VL
CHR
B
G
R
OSC
OSC
VPLS
HPLS
VDØ
GNØ
TEST
RESP
AFTL
AGC
BLK
K0
K1
K2
50/60
STBY
TEXT
REQ
ØCLK
ØT0
ØT1
ØT2
ØT3
MCS
PRC
HAFC
SIRCS
HUE
NC
VOL
VC
R038
1.0k
R039
1.0k
R040
1.0k
R041
1.0k
R042
1.0k
R043
1.0k
R091
220
R048
1.0k
L001
27μH
C008
47p
CH
C009
56p
CH
R049
1.0k
R053
47k
R050
22k
C010
100
50V
C011
0.01
F
ØD07
RØ5.6ES-T1B2
PROTECT-2
R017
1.0k
R018
1.0k
CP001
220PX3
R014
1.0k
R016
10k
R1001
2.2k
R1002
3.3k
C005
0.001
B
1SS133T
R059
33k
R060
39k
ØD12
PROTECT
R023
10k
R024
10k
R044
10k
R077
470
C026
0.0047
B
R070
1.0k
R071
1.0k
R072
1.0k
R073
1.0k
SUB CONTROLER
IC002
MB88503H-597G
SYSTEM-CTL
NC
INST
NC
NC
HUER
L
Ø/K
I
M
B/G
N358
N443
SECAM
AV
CLK
R045
1.0k
R031
10k
R028
1k
R027
1k
R028
1k
R029
1k
R1006
180
R1007
180
R090
470
ØD08
RØ36ES-T1B4
39V-ZENER
C015
47
50V
C016
0.01
F
C017
10
50V
R051
10k
Q004
JA101TP
SYNC-SEP
R079
33k
R078
3.3k
R081
100k
C019
0.047
100V
MPS
C027
0.1
100V
MPS
C018
270p
R063
15k
R064
10k
R046
10k
C028
150p
R062
330
ØD09
RØ5.6ES-T1B2
PROTECT-3
R084
470
R032
1.0k
Q003
JA101TP
VIDEO-BUFF
R1012
100
CN045
TO J1 BOARD
CNJ45
MODØ 2
AVR
GNØ
SCL
SDA
R75
1k
R057
220
ØD91
1SS133T
SYNC-SW-1
ØD92
1SS133T
SYNC-SW-2
ØD93
1SS133T
SYNC-SW-3
Q591
JC501TP
SYNC-SW
Q598
JC501TP
SYNC-AMP
R593
10k
R592
10k
R599
100
R5502
1.0k
R595
1.0k
C591
10
50V
R594
3.9k
R591
6.8k
R597
4.7k
C592
47
50V
R596
4.7k
R598
100
ØD08
1SS133T
ØD54
RØ9.1ES-T1B3
10V-ZENER
C258
0.1
100V
MPS
R261
10k
R251
1.0k
R262
470
Q252
ØTC124ES
MUTE
R256
2.2
FPRØ
C256
0.1
100V
MPS
IC251
LA4280
AF-OUT
L AUDIO
R AUDIO
VIDEO
C257
0.01
F
R253
470
C252
4.7
50V
C253
100
50V
C254
4.7
50V
C255
4.7
50V
R266
4.7k
C265
0.001
B
C266
0.001
B
CNØ23
TO J1 BOARD
CNJ23
L OUT
GNØ
GNØ
R OUT
R263
2.2k
R264
2.2k
R260
10
CNØ21
TO KS BOARD
CNK21
1 18V
2 VOL
3 MUTE
4 SW
5 SDA
6 SCL
7 LED 2
8 LED 1
9 L OUT
10 R OUT
11 12V
12 TV L IN
13 GNØ
14 TV R IN
15 4 LEL
16 GNØ
17 L IN
18 R IN
CNØ31
TO B BOARD
CNB31
1 SDA
2 SCL
3 STBY
4 BLK 1
5 B IN
6 G IN
7 R IN
8 SCP
9 12V
10 GNØ
11 GNØ
12 MUTE
13 ABL
14 CHR
15 +BLK
16 GNØ
17 VIDEO
18 HUE
CNØ11
TO A BOARD
CNA11
1 L OUT
2 GNØ
3 R OUT
4 4 LEL
5 PRC
6 GNØ
7 TV OUT
8 GNØ
9 AFT
10 VC
11 U
12 VSH
13 VH
14 VL
15 BANØ
16 GNØ
17 AGC
18 12V
IC401
CX20061-GX
VIDEO-SW
Vcc
IN 2
CONT
OUT
GNØ
NC
IN 1
NC
C401
47
50V
C403
47
50V
R410
470
R401
27k
R402
33k
R411
470
R412
470
CNK25
R OUT 1
GNØ 2
L OUT 3
TO J1 BOARD
CNJ25
R231
47k
R232
47k
C203
47
16V
C206
47
16V
ØD201
RØ9.1ES
PROTECT
ØD202
RØ9.1ESB3
PROTECT-2
KS
(STEREO)
(SYSTEM COTROL,
MEMORY, POWERCTL,
JUNGLE, H·V OUT,)
D
CNØ84
G2
200V
GNØ
H+
H+
H-
H-
V-
V+
CNØ41
L IN
R IN
GNØ
L OUT
R OUT
GNØ
R
G
B
GNØ
BLK
GNØ
12V
MODE 1
GNØ
V OUT
GNØ
V TV IN
TO J1 BOARD
CNJ41

OARD
302)

135V
5V
12V
-30V
R017 1.0k
R018 1.0k
R014 10k
R1002 3.3k
R1009 1.0k
Q001 2SC4035P VC-AMP
C001 100p
R019 22k
R020 22k
R022 22k
R021 22k
C003 0.1 100V :MPS
C004 10 50V
R099 22k 2W :RS
IC004 μPC574J-TP REG
1SS133T
R059 33k
R060 39k
D012 PROTECT
R023 10k
R024 10k
R044 10k
C005 0.001 B
R056 82k
R052 68k
R074 1.0k
C020 100p
C021 100p
C023 1 50V
C024 1 50V
R077 470
R070 1.0k
R071 1.0k
R072 1.0k
R073 1.0k
C026 0.0047 B
JW10
SUB CONTROLER
IC002 MB88503H-597G SYSTEM-CTL
R045 1.0k
R031 10k
R026 1k
R027 1k
R028 1k
R029 1k
R090 470
R1006 180
R1007 180
R069 3.3k
R030 4.7k
R025 1.0k
L001 27μH
C008 47p CH
C009 56p CH
C010 100 50V
C011 0.01 F
D007 RD5.6ES-T1B2 PROTECT-2
R049 1.0k
R053 47k
R050 22k
D008 RD36ES-T1B4 39V-ZENER
C015 47 50V
C016 0.01 F
C017 10 50V
R062 330
R051 10k
C018 270p
R063 15k
R064 10k
D009 RD5.6ES-T1B2 PROTECT-3
R046 10k
C028 150p
R084 470
R032 1.0k
Q003 JA101TP VIDEO-BUFF
R1012 100
Q004 JA101TP SYNC-SEP
R079 33k
R078 3.3k
R081 100k
C019 0.047 100V :MPS
C027 0.1 100V :MPS
R048 1.0k
R091 220
C012 100 50V
C013 0.01 F
R057 220
R058 220
R096 220
R095 220
R080 10k
R083 10k
R094 10k
R093 10k
CN045 TO J1 BOARD CNJ45
MOD 2
AVR
GND
SCL
SDA
R75 1k
CN012
GND
INST
L
Ø/K
I
M
B/G

CN011 TO A BOARD CNA11
L OUT
GND
R OUT
4 LEL
PRC
GND
TV OUT
GND
AFT
VC
U
VSH
VH
VL
BAND
GND
AGC
12V

SYSTEM COTROL, MEMORY, POWERCTL, JUNGLE, H·V OUT,
D

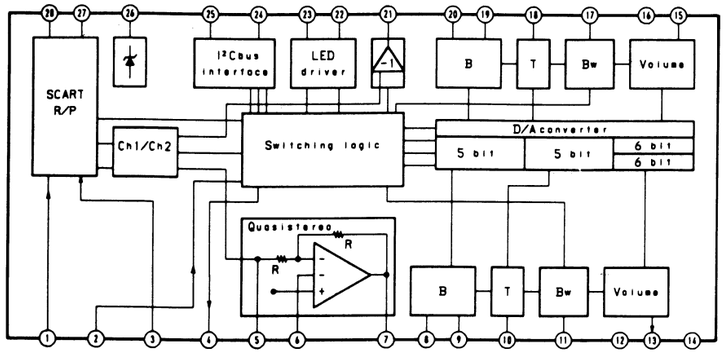
KS
(STEREO)

CNK25
R OUT
GND
L OUT
TO J1 BOARD CNJ25
Q201 JC501 R-BUFF
Q202 JC501 L-BUFF
D201 RD9.1ESB3 PROTECT-1
D202 RD9.1ESB3 PROTECT-2
D205 RD7.5ESB3 PROTECT-5
D206 RD7.5ESB3 PROTECT-6
IC201 TDA6200 AF-INTERFACE
CNK21
TO D BOARD CND21

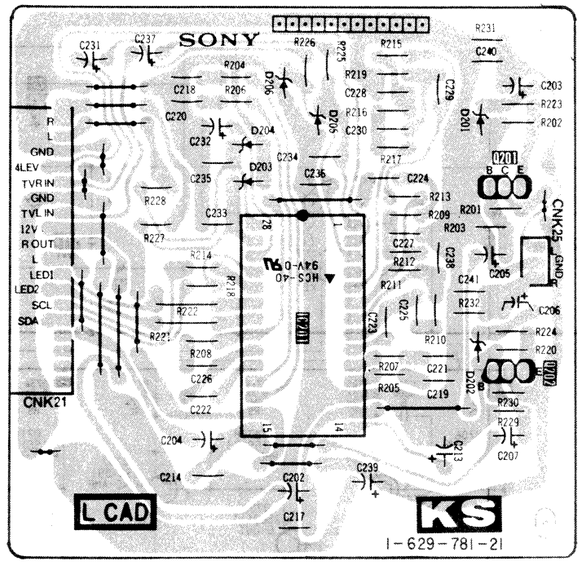
Ks [AF INTERFACE]

D [AF OUT, Y-CHROMA, JUNGLE, V-H DEF]

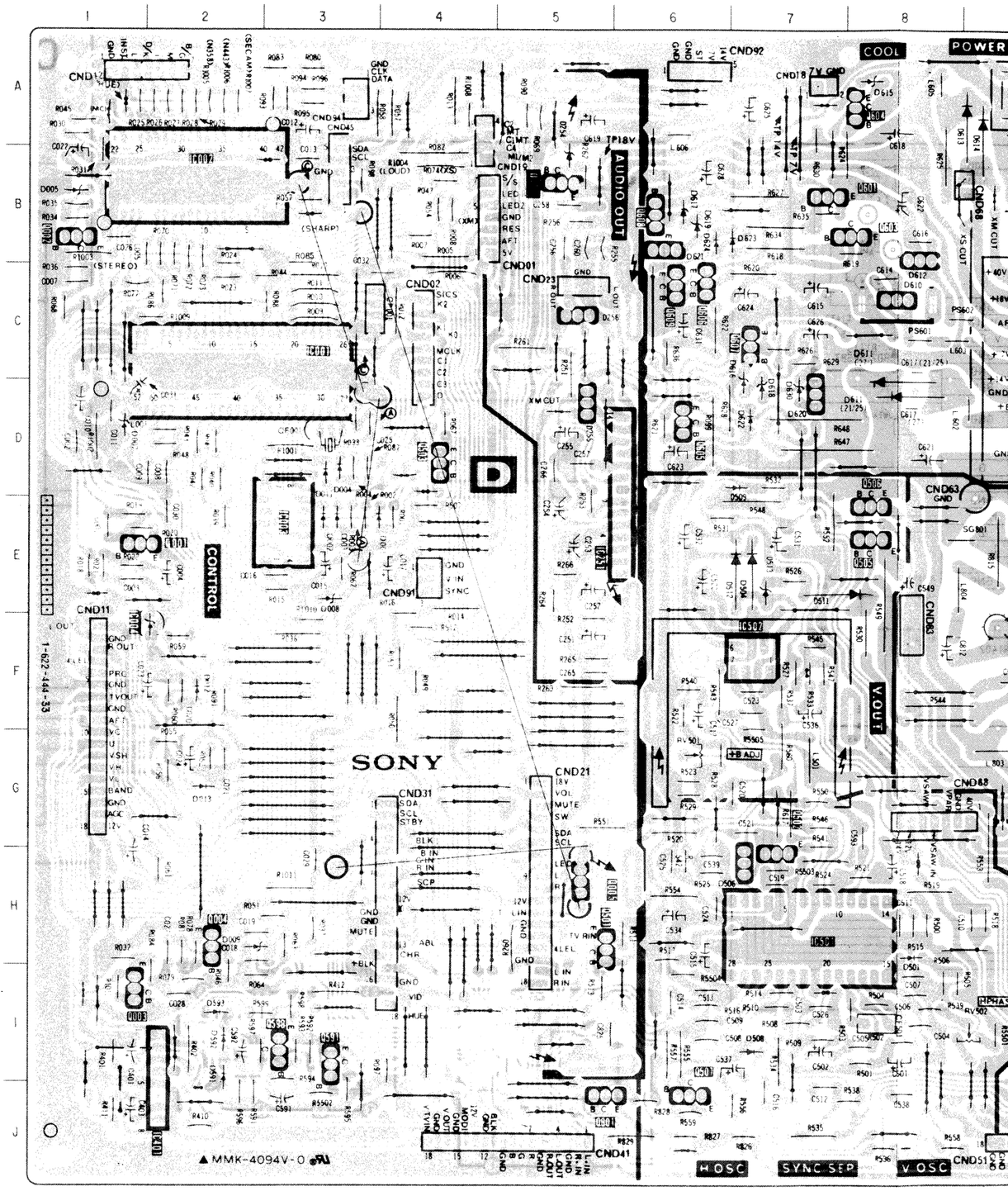
KS BOARD IC201 TDA6200



— KS Board —

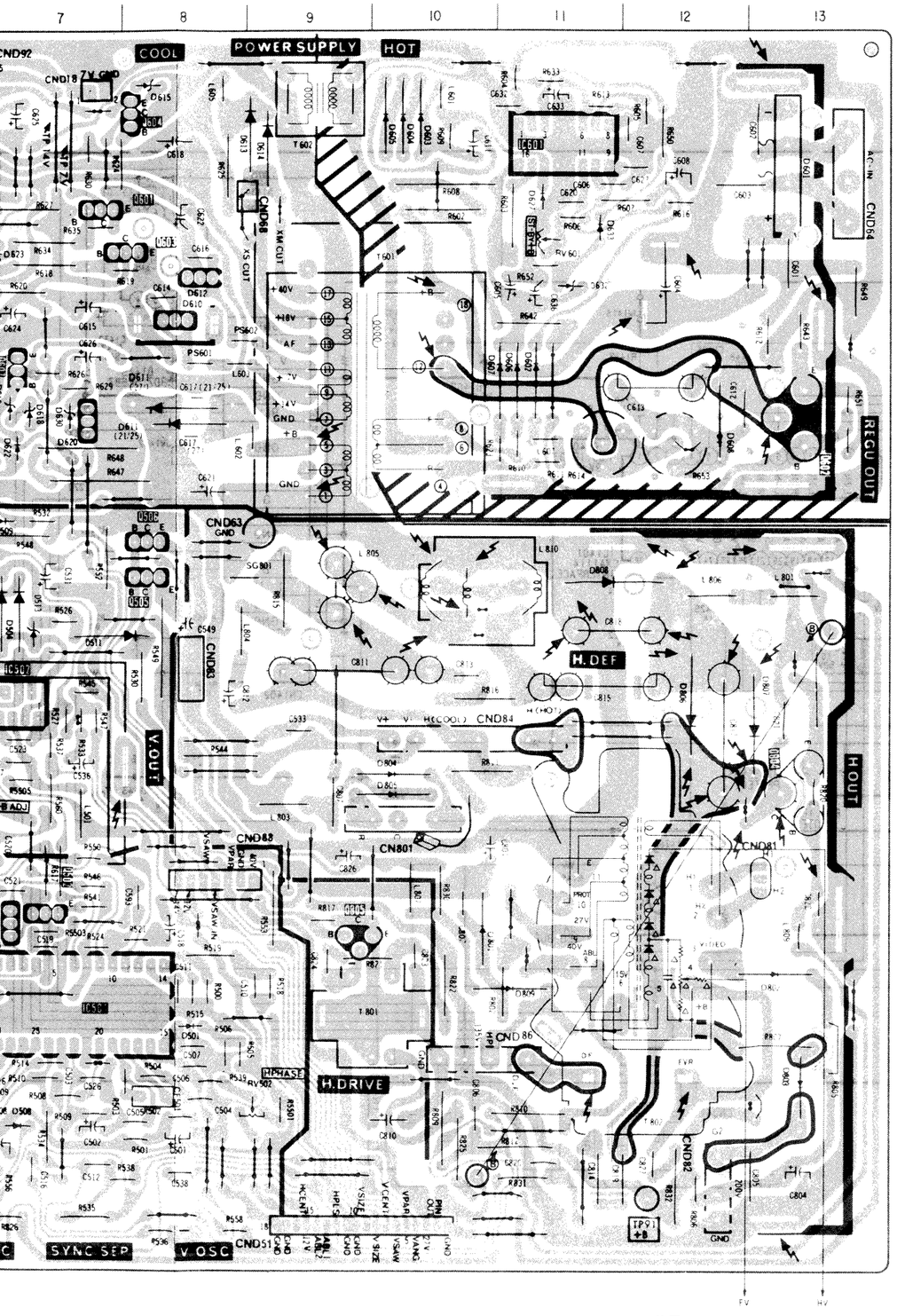


— D Board —



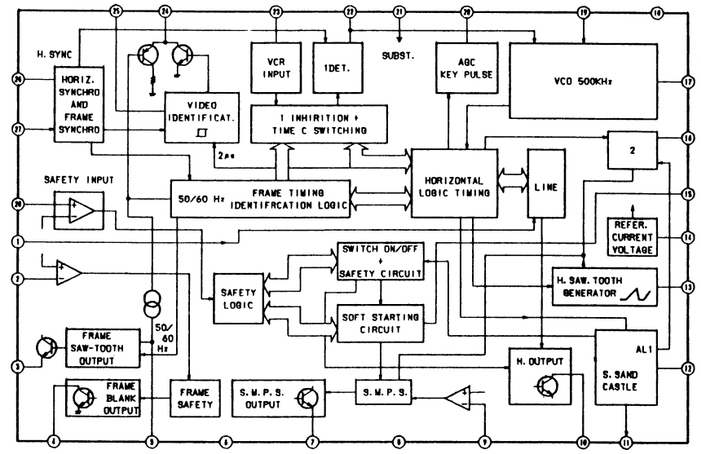
• D BOARD WAVEFORM

① 1.2Vp-p(H)	⑤ 4Vp-p(H)	⑨ 0.1Vp-p(503kHz)	⑬ 12Vp-p(H)	⑰ 5.6Vp-p(H)
② 2.4Vp-p(V)	⑥ 11Vp-p(H)	⑩ 1.8Vp-p(H)	⑭ 1200Vp-p(H)	⑱ 5.6Vp-p(V)
③ 5.3Vp-p(V)	⑦ 14Vp-p(H)	⑪ 3.2Vp-p(H)	⑮ 1Vp-p(H)	⑲ 6.4Vp-p(H)
④ 2.4Vp-p(V)	⑧ 3.6Vp-p(H)	⑫ 230Vp-p(H)	⑯ 11Vp-p(H)	

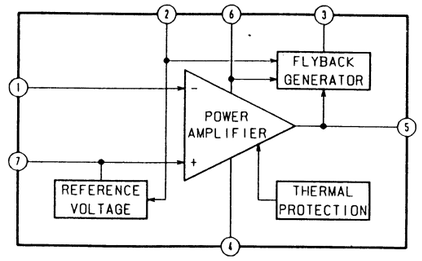


IC		DIODE	
IC001	D-3	D001	E-4
IC002	B-2	D002	E-3
IC003	E-3	D003	E-3
IC004	F-2	D004	D-3
IC251	E-6	D005	B-1
IC401	J-2	D007	D-1
IC501	H-7	D008	F-3
IC502	F-7	D009	I-3
IC601	B-11	D011	E-3
		D012	F-2
		D013	G-2
TRANSISTOR		D254	B-5
Q0001	E-2	D501	I-8
Q0002	B-1	D504	E-7
Q0003	I-2	D506	H-7
Q0004	H-2	D508	I-7
Q252	B-6	D511	F-8
Q501	H-6	D512	E-7
Q502	H-7	D513	E-7
Q503	D-4	D591	J-2
Q505	E-8	D592	I-2
Q506	E-8	D593	I-2
Q507	J-6	D601	B-13
Q591	I-3	D602	C-11
Q598	I-3	D603	A-10
Q601	B-8	D604	A-10
Q602	D-13	D605	A-10
Q603	B-8	D606	C-11
Q604	A-8	D607	C-11
Q605	D-6	D608	D-11
Q606	C-6	D610	C-8
Q607	C-7	D611	D-8
Q608	B-6	D612	C-8
Q609	C-6	D613	A-9
Q801	J-6	D614	B-9
Q804	G-13	D615	A-8
Q805	H-10	D616	D-7
		D617	B-6
		D618	D-7
		D619	B-6
		D620	D-8
		D621	C-6
		D622	D-7
		D623	C-7
		D624	C-7
		D627	B-11
		D630	D-7
		D632	C-11
		D633	C-11
		D801	H-11
		D802	H-13
		D803	I-13
		D804	G-10
		D805	G-10
		D806	F-12
		D808	E-12
		D809	H-11
		VARIABLE RESISTOR	
		RV501	G-6
		RV502	I-9
		RV601	B-11

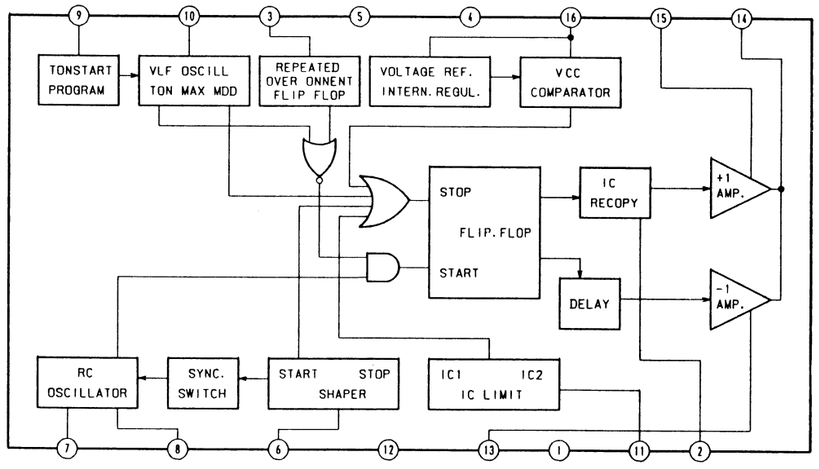
D BOARD IC501 TEA2028A



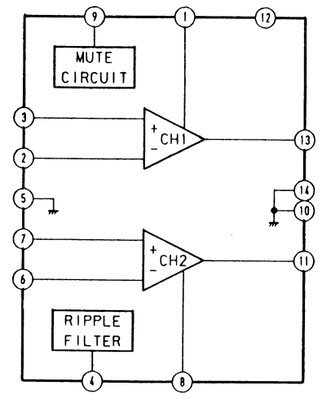
D BOARD IC502 TDA8170

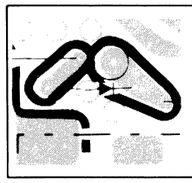


D BOARD IC601 TEA2164

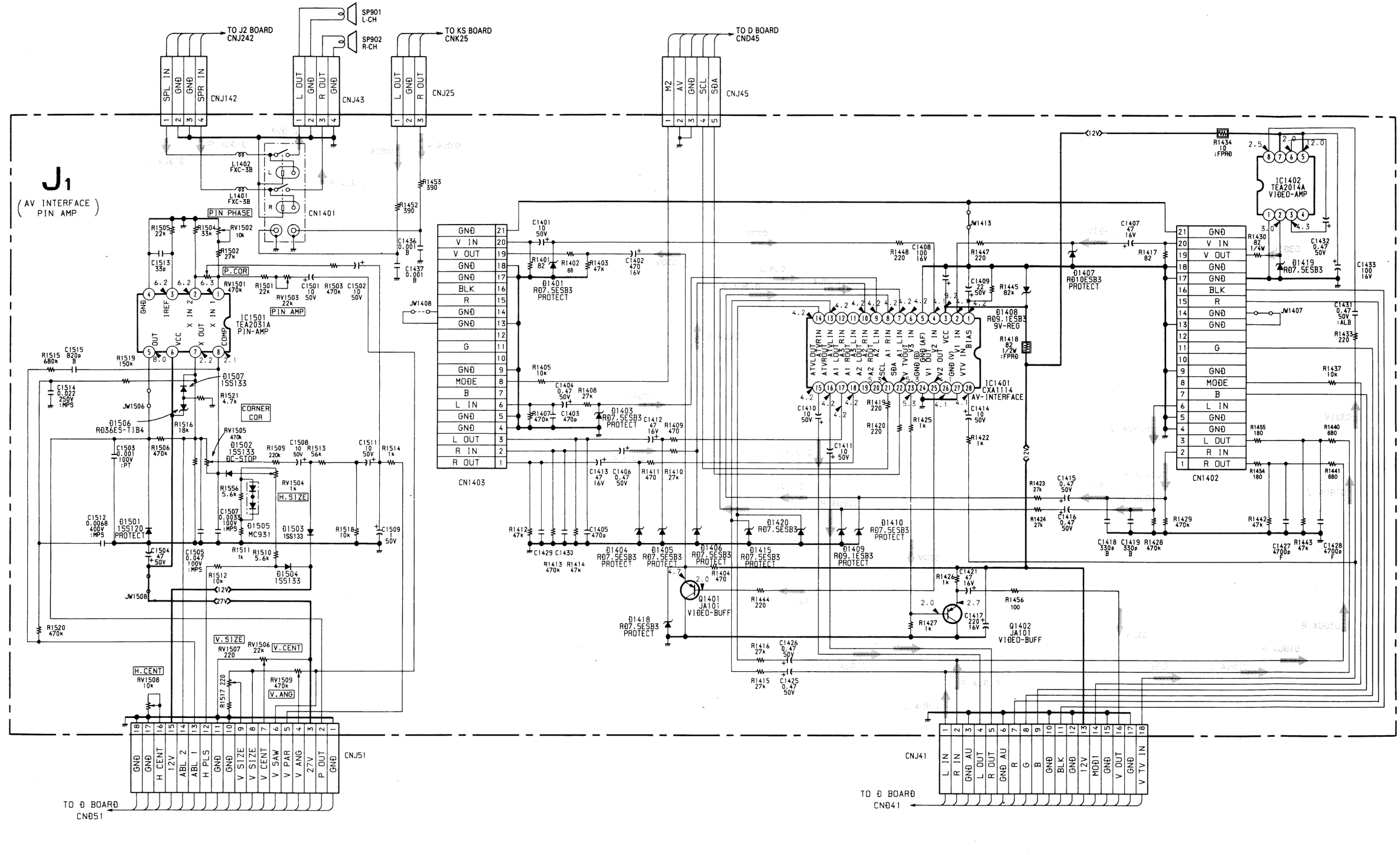


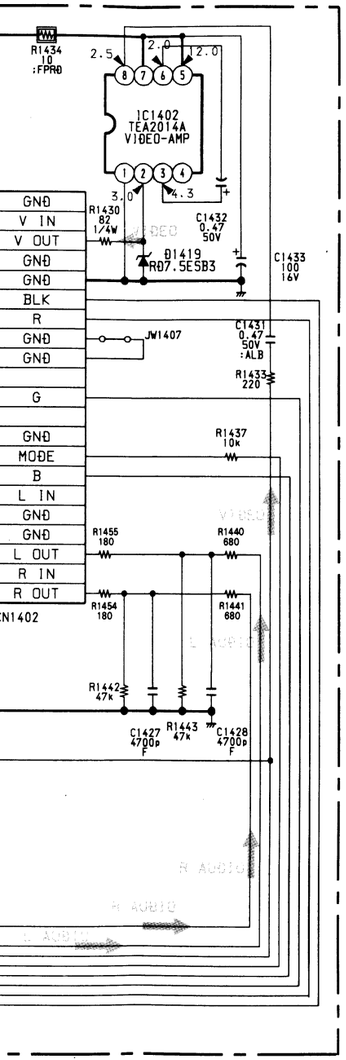
D BOARD IC251 LA4280

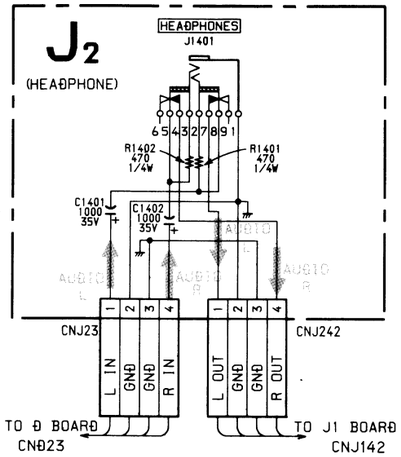


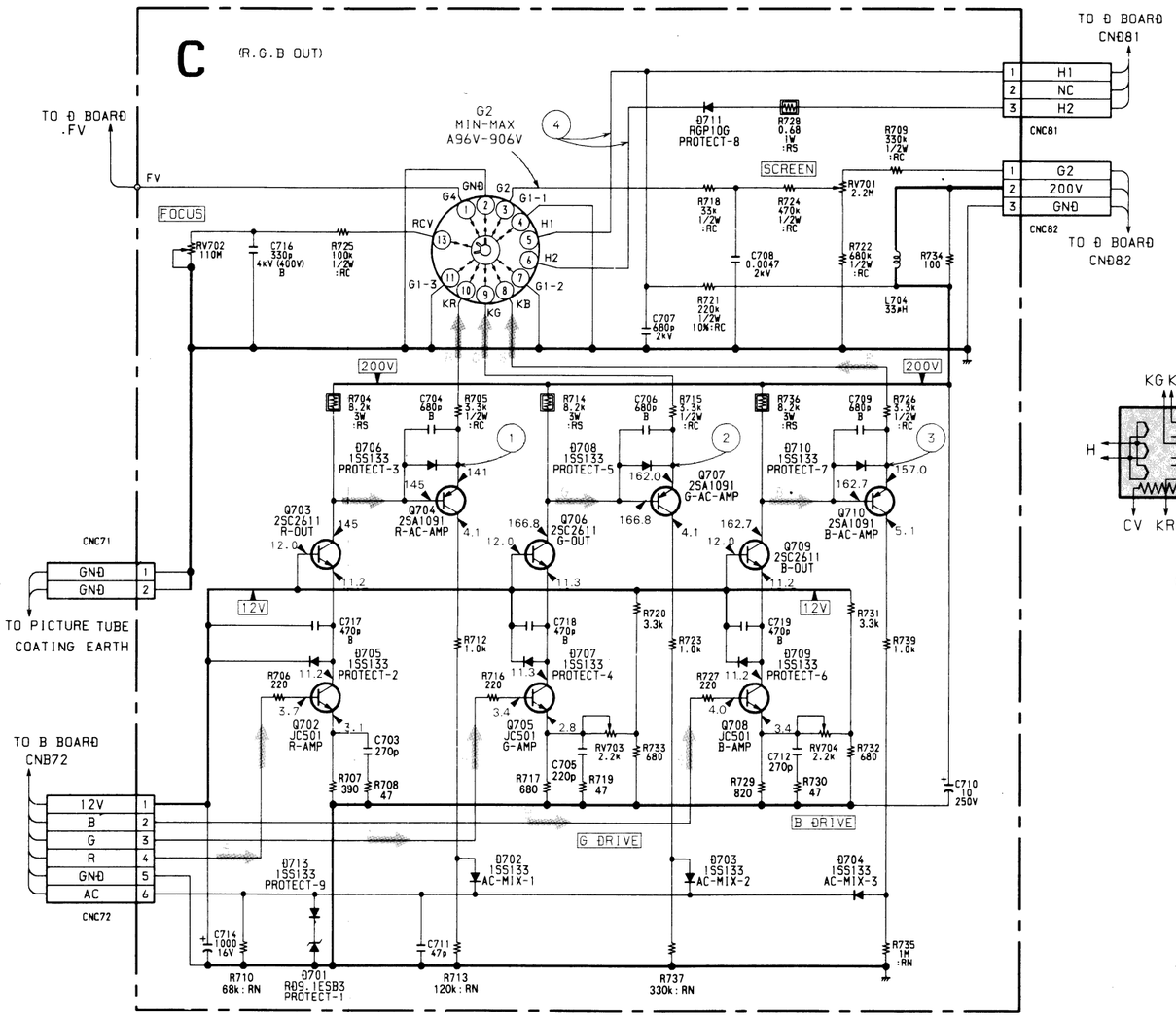


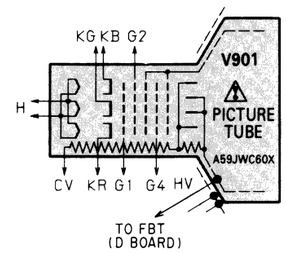
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


J1
(AV INTERFACE PIN AMP)
TO J2 BOARD CNJ242
SPL IN
GND
GND
SPR IN
CNJ142
SP901 L-CH
SP902 R-CH
L OUT
GND
R OUT
GND
CNJ43
TO KS BOARD CNK25
L OUT
GND
R OUT
CNJ25
TO D BOARD CND45
M2
AV
GND
SCL
SDA
CNJ45
L1402 FXC-3B
L1401 FXC-3B
CN1401
PIN PHASE
P.COR
PIN AMP
IC1501 TEA2031A PIN-AMP
CORNER COR
AC-STOP
H.SIZE
V.SIZE
V.CENT
H.CENT
V.ANG
CNJ51
TO D BOARD CND51
CN1403
IC1402 TEA2014A VIDEO-AMP
IC1401 CXA1114 AV-INTERFACE
D1408 RD9.1ESB3 9V-REG
D1407 RD10ESB3 PROTECT
Q1401 2A101 VIDEO-BUFF
Q1402 2A101 VIDEO-BUFF
CN1402
CNJ41
TO D BOARD CND41









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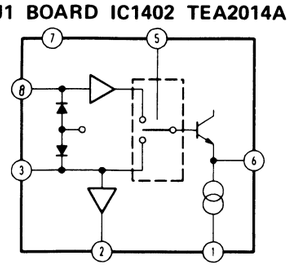
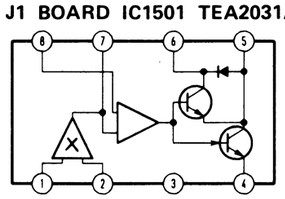
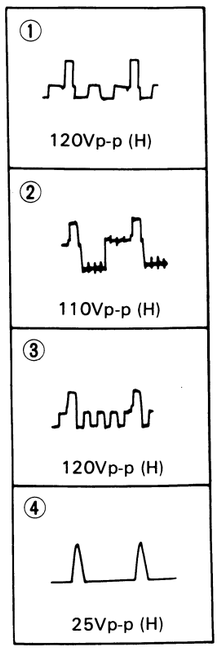
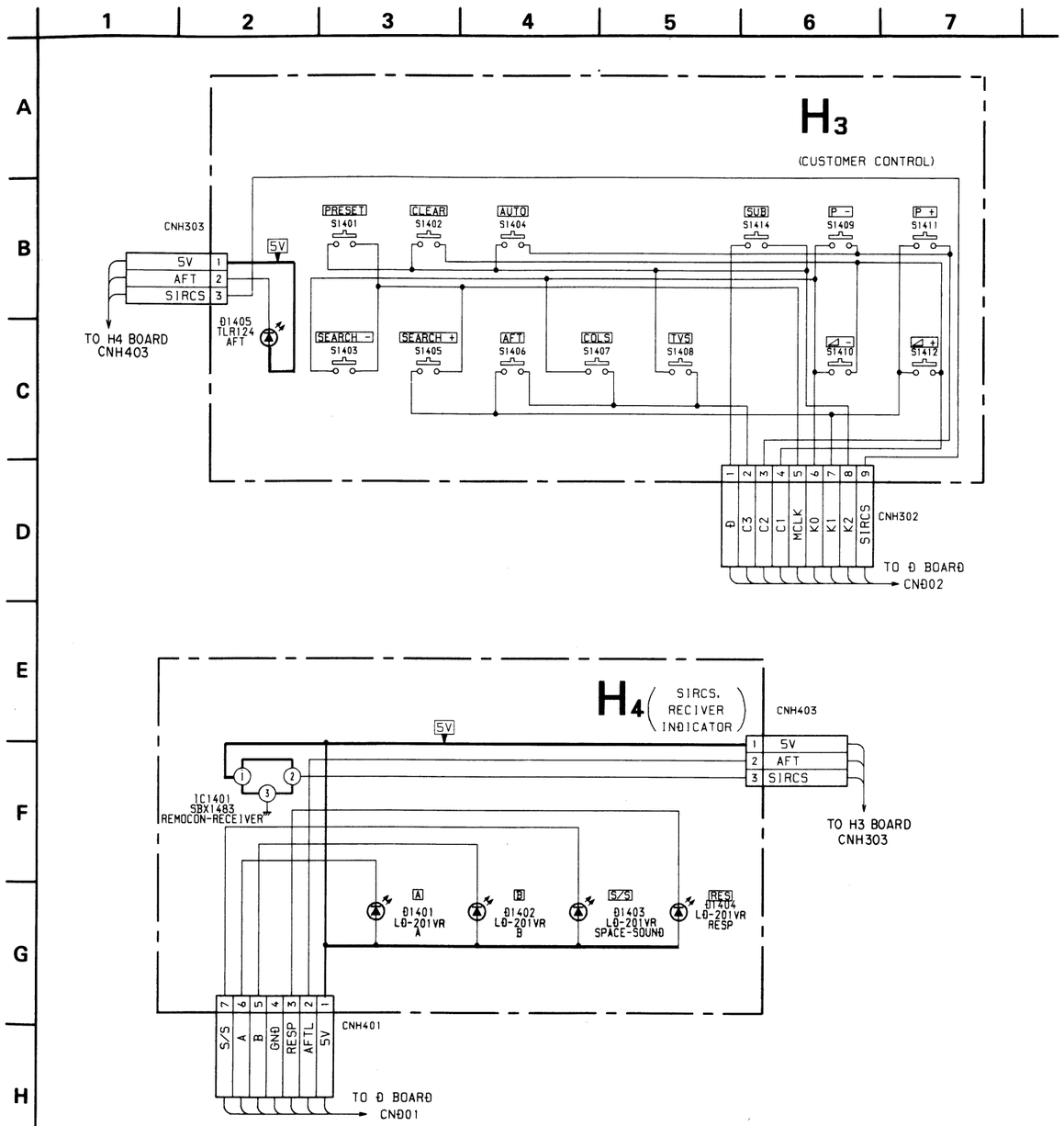


J1 BOARD IC1501 TEA2031A

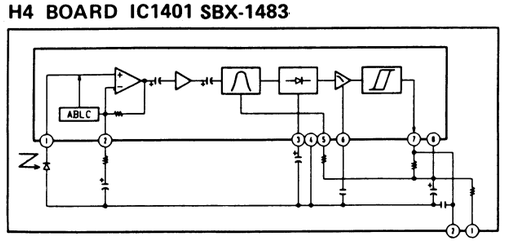


• C BOARD WAVEFORM



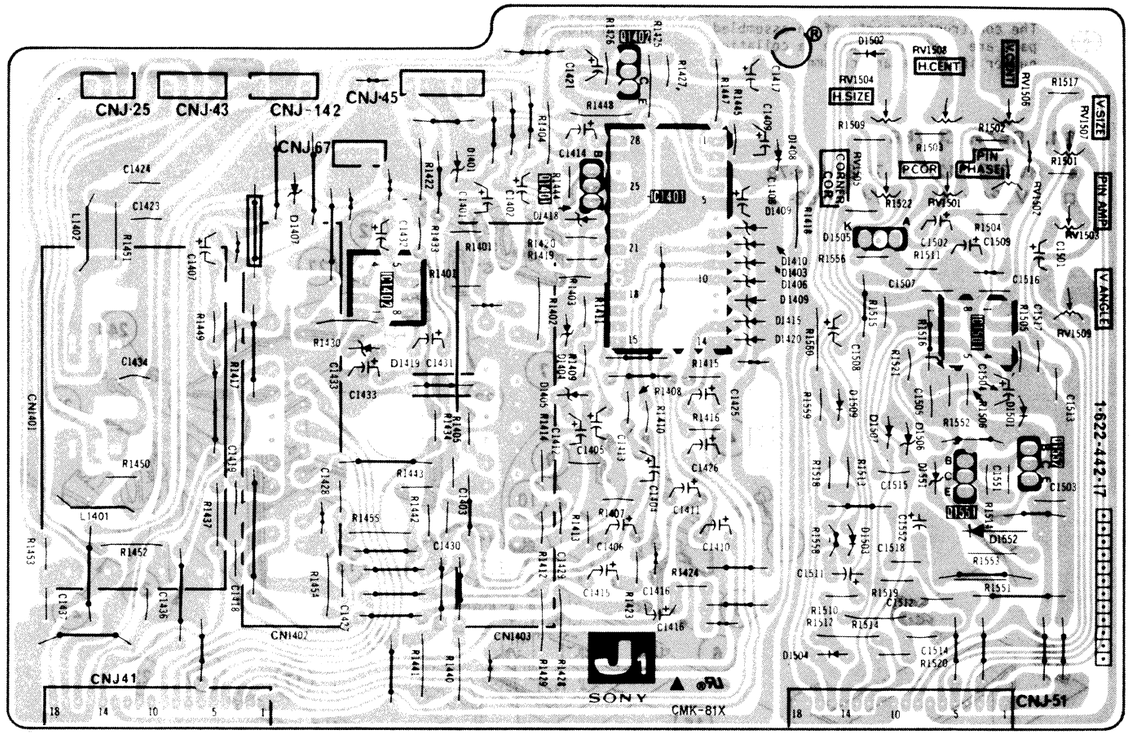


H4 BOARD IC1401 SBX-1483

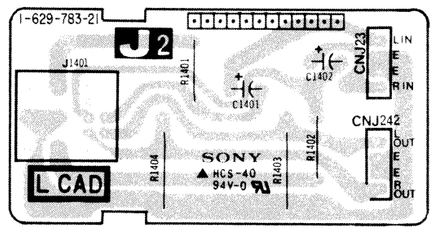


J1 [INTERFACE] J2 [HEADPHONE JACK]

– J1 Board –



– J2 Board –



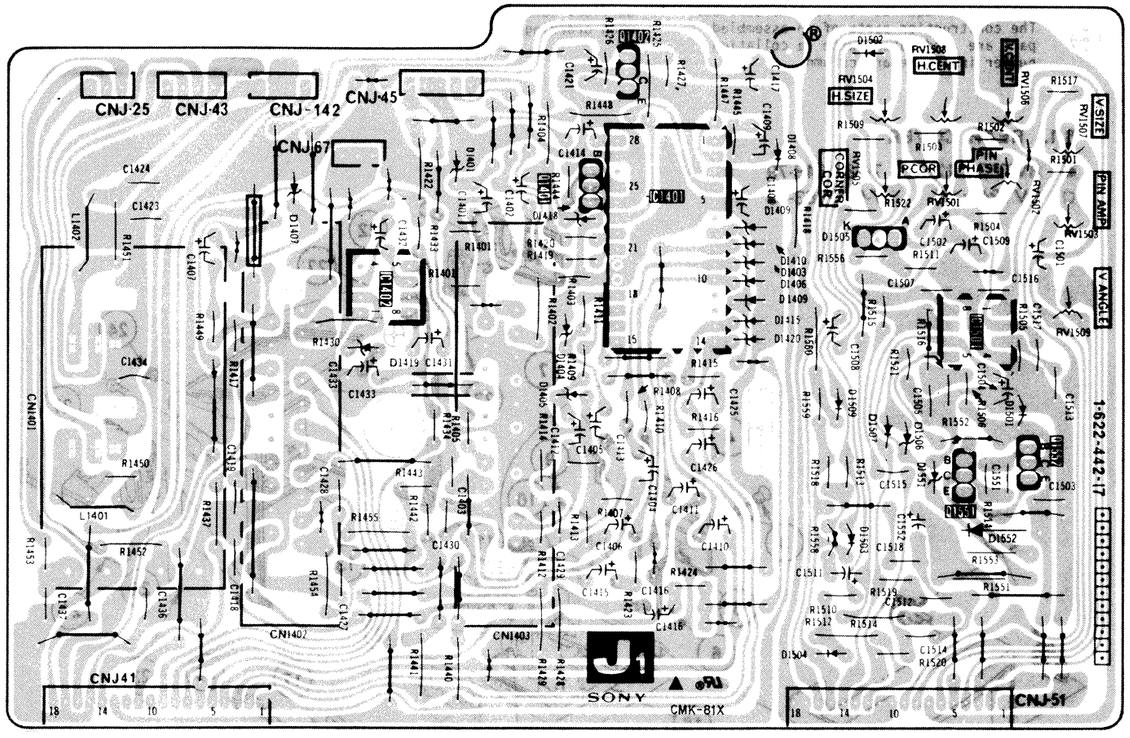
7

BOARD
902

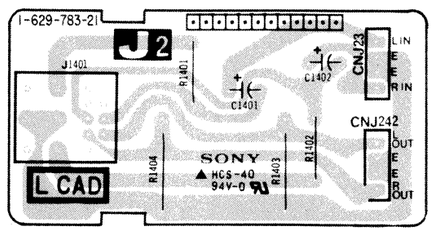
J1 [INTERFACE]

J2 [HEADPHONE JACK]

– J1 Board –



– J2 Board –

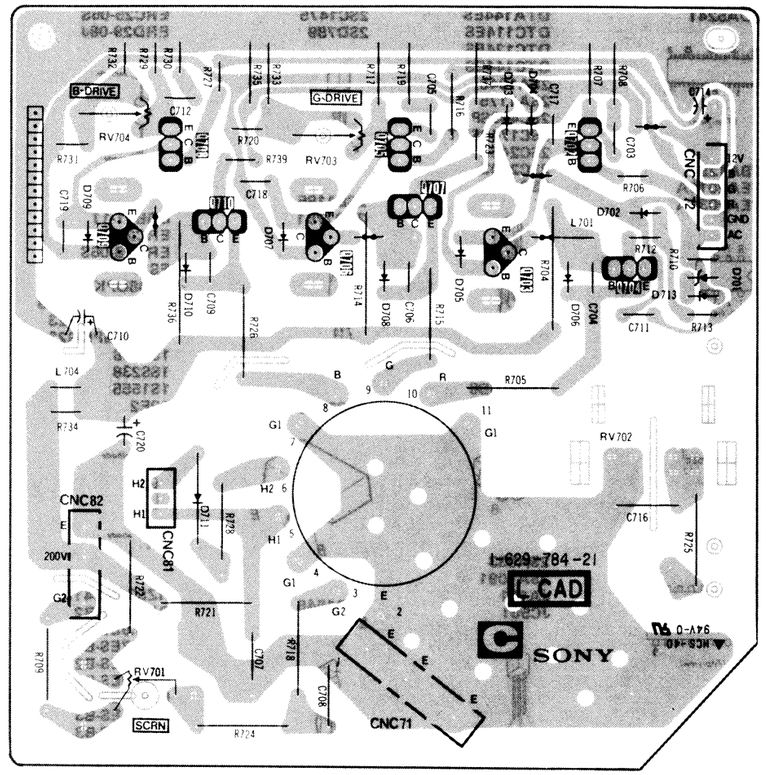


C [R·G·B OUT]

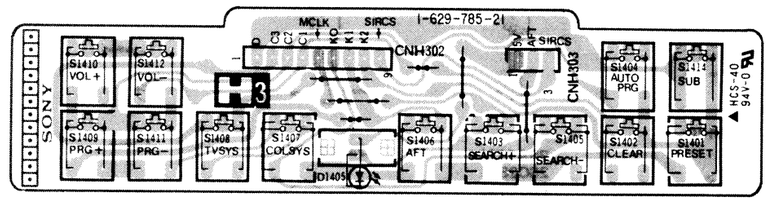
H3 [CUSTOMER CONTROL]

H4 [REMOCON RECEIVER]

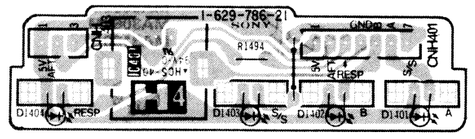
– C Board –



– H3 Board –



– H4 Board –



5-5. SEMICONDUCTORS

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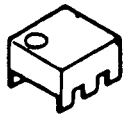
SBX1483



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TEA2028B
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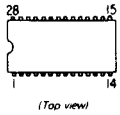
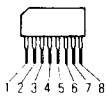


CX20061



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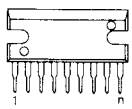

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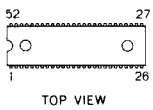

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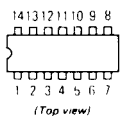

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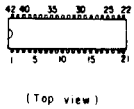

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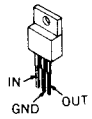

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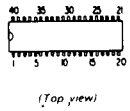

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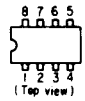
TEA2031A



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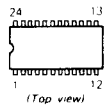

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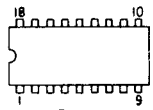

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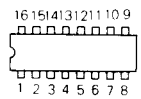

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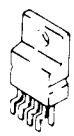

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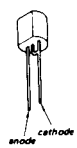

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DTA144ES
DTC114ES
DTC124ES
DTC144ES
2SA1048
2SA1175
2SC403SP
2SC1740SRT
2SC2458
2SC2603
2SC2710

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2SB815B6
2SC2712G

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2SA1091
JA101
JC501

2SA1175
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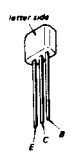

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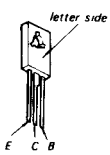

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2SB740
2SC1475
2SD789

2SB1185
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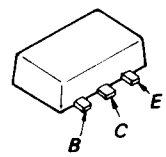
2SC2873-Y



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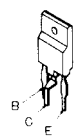

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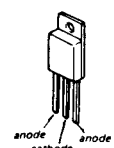
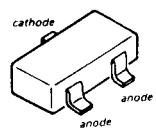


DAN-202K



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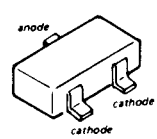

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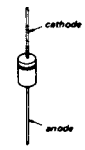
ERC25-06S
ERD29-08J



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ERC24-06S
ERD28-06S
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RGP01-17PKG23
RGP10GPKG23
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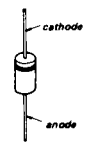
1SS238
1S1555
10E2



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RD3.9ES-B1
RD4.7ES-B1
RD5.6ES-B2
RD6.2ES-B2
RD6.8ES-B2
RD7.5ES-B3
RD9.1ES-B3
RD10ES-B3
RD15ES-B1
RD36ES-B4
RD39ES-B4
1SS119
1SS120
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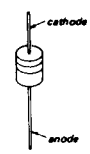

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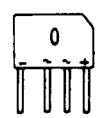

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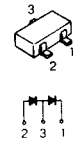
MA3056M
MA3068M
MA3130L



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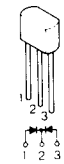

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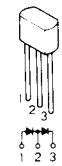

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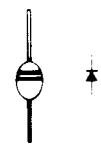
V19E



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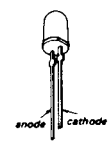

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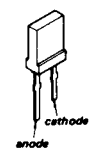

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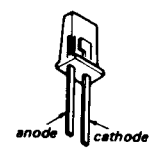

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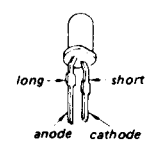


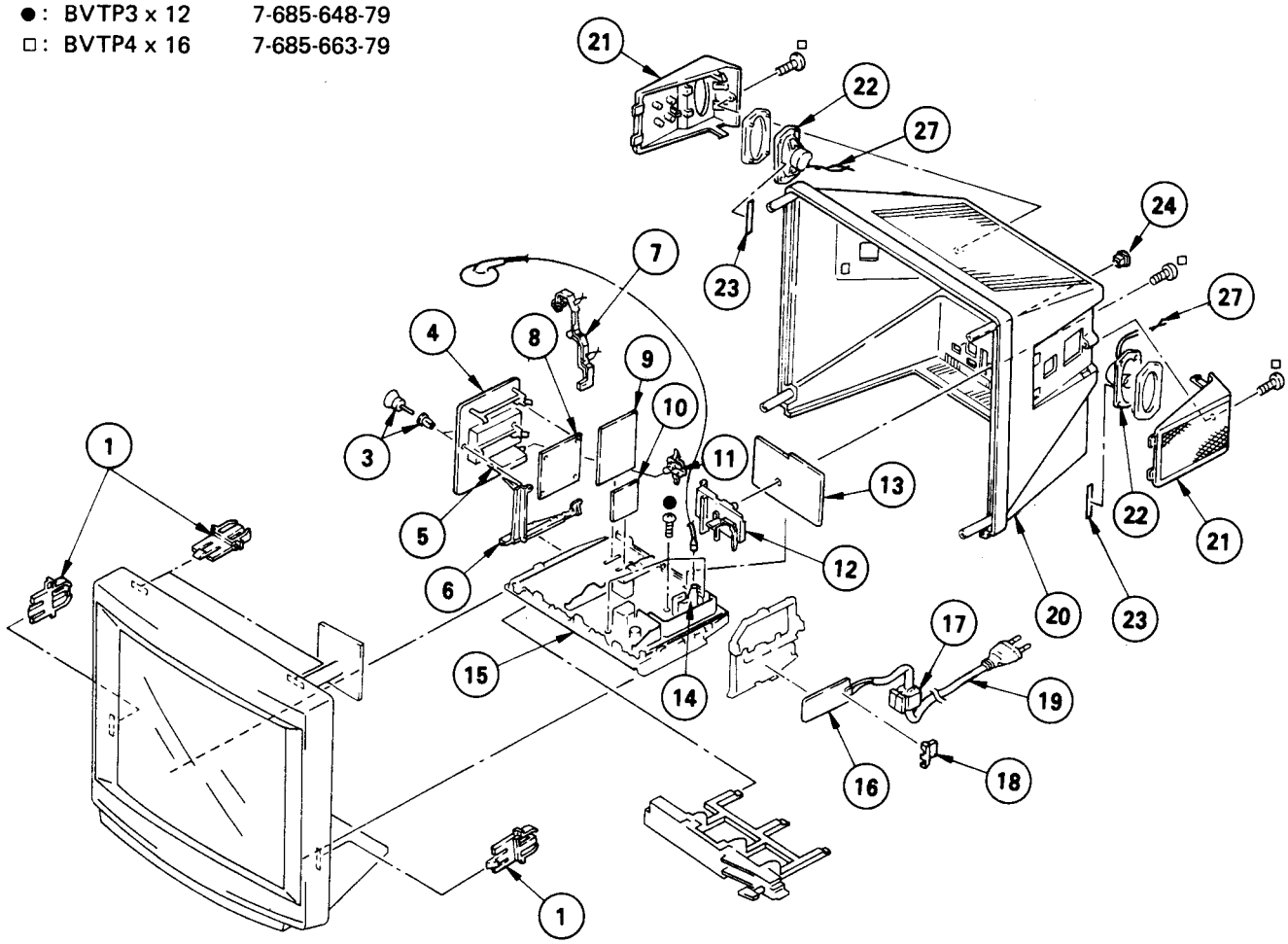
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. REAR COVER

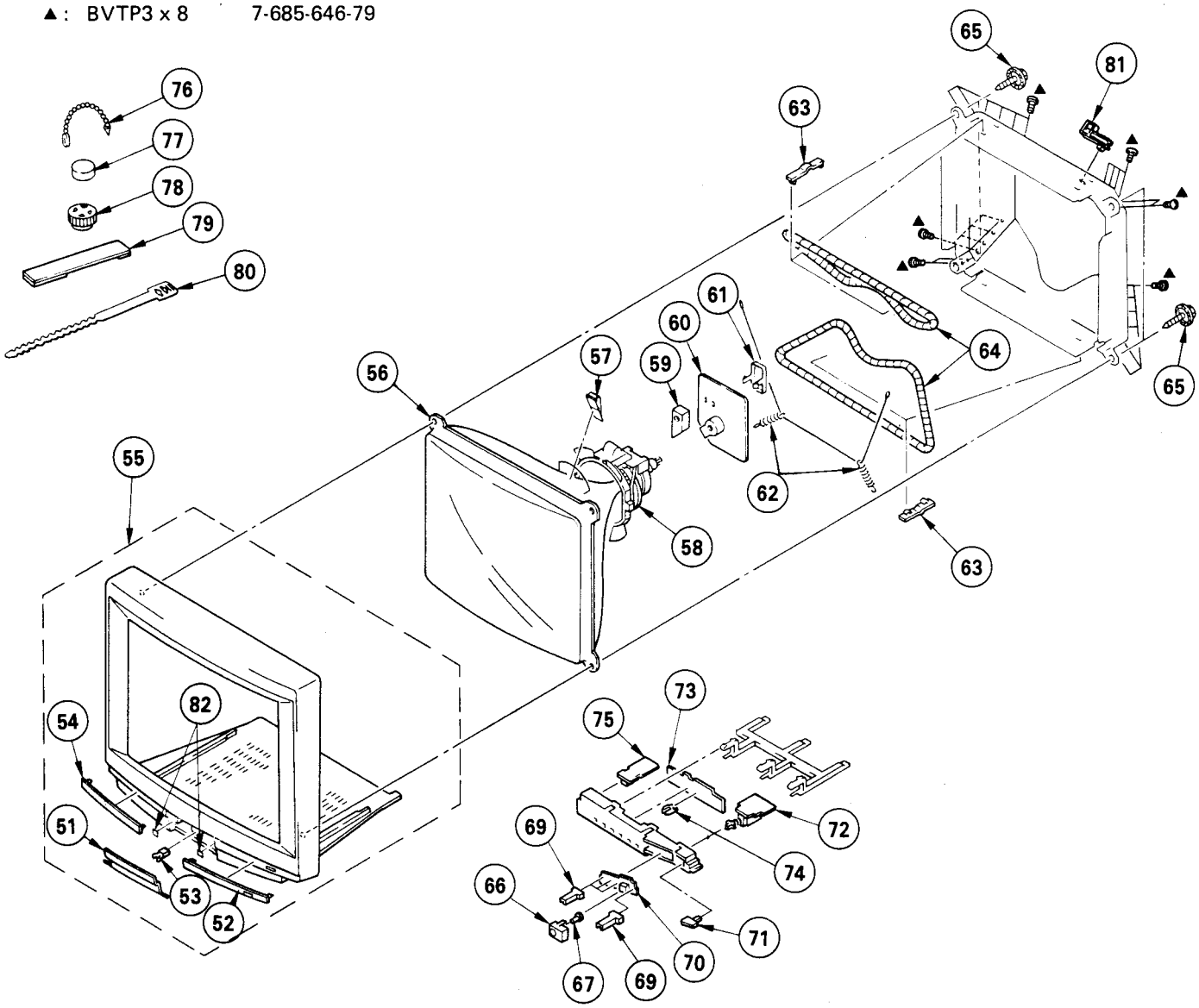
●: BVTP3 x 12 7-685-648-79
□: BVTP4 x 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-382-745-01	HOLDER, RC	
3	4-386-618-01	RIVET, T TYPE	
4	*A-1296-476-A	A BOARD, COMPLETE	
5 ⚠	.1-465-053-11	TUNER, ET (UV-615S)	
6	*4-386-629-12	BRACKET, A	
7	*4-386-628-11	SUPPORTER, PC BOARD	
8	*A-1347-030-A	V BOARD, COMPLETE	
9	*A-1135-498-A	B BOARD, COMPLETE	
10	*1-629-781-21	KS BOARD	
11	*4-386-617-01	HOLDER, TERMINAL	
12	*4-386-624-11	BRACKET, J	
13	*A-1371-373-A	J1 BOARD, COMPLETE	
14 ⚠	.1-439-416-11	TRANSFORMER ASSY, FLYBACK	
15	*A-1345-720-A	D BOARD, COMPLETE	
16	*1-629-719-21	F1 BOARD	
17 ⚠	.4-022-115-01	HOLDER, AC CODE	
18	*4-386-620-01	COVER, POWER	
19 ⚠	.1-559-346-12	CORD, POWER (WITH CONNECTOR)	
20	4-387-818-11	COVER, REAR	
21	X-4385-930-3	BOARD ASSY, BAFFLE	
22	1-503-642-41	SPEAKER	
23	4-387-886-01	SPACER, BAFFLE BOARD	
24	4-389-292-01	BUSHING, CORD	
27	1-574-565-11	CORD (WITH PLUG)	

6-2. PICTURE TUBE

▲: BVTP3 x 8 7-685-646-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-389-279-01	DOOR, CONTROL	
52	4-392-804-01	PLATE (C), ORNAMENTAL	
53	4-386-710-01	CATCHER, PUSH	
54	4-392-805-01	PLATE (D), ORNAMENTAL	
55	X-4385-965-1	BEZNET ASSY	51-54
56 ⚠	.8-733-224-05	PICTURE TUBE (A59JWC60X)	
57	3-703-961-01	SPACER, DY	
58 ⚠	.1-451-311-31	DEFLECTION YOKE (Y25FXA)	
59	*4-379-167-01	COVER (MAIN), CV	
60	*A-1330-849-A	C BOARD, COMPLETE	
61	*4-379-160-01	COVER (REAR LID), CV	
62	4-303-774-XX	SPRING	
63	*4-385-916-01	HOLDER (D)	
64 ⚠	.1-426-372-11	COIL, DEMAGNETIZATION	
65	4-373-263-01	SCREW (M), PT	
66	*4-388-955-01	BRACKET (B), LIGHT GUIDE	
67	*4-374-987-01	GUIDE, LIGHT	
69	*4-387-825-01	HOLDER, LED	
70	*1-629-786-21	H4 BOARD	
71	4-389-278-01	BUTTON, POWER	
72	*1-629-720-21	F2 BOARD	
73	*1-629-785-21	H3 BOARD	
74	*4-384-208-01	HOLDER, LED	
75	*1-629-783-21	J2 BOARD	
76	4-308-870-00	CLIP, LEAD WIRE	
77	1-452-032-00	MAGNET, DISK; 10MM ϕ	
78	1-452-094-00	MAGNET, ROTATABLE DISK; 150MM ϕ	
79	X-4387-214-1	PERMALOY ASSY, CONVERGENCE	
80	3-701-007-00	BAND, BINDING	
81	*4-387-216-01	HOLDER, LEAD	
82	4-314-871-00	CUSHION	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A C

REF.NO.	PART NO.	DESCRIPTION				REMARK
R153	1-249-416-11	CARBON	820	5%	1/4W	
R154	1-249-441-11	CARBON	100K	5%	1/4W	
R155	1-249-430-11	CARBON	12K	5%	1/4W	
R156	1-247-881-00	CARBON	120K	5%	1/4W	
R163	1-249-424-11	CARBON	3.9K	5%	1/4W	
R165	1-249-423-11	CARBON	3.3K	5%	1/4W	
R166	1-249-437-11	CARBON	47K	5%	1/4W	
R174	1-249-429-11	CARBON	10K	5%	1/4W	
R175	1-249-429-11	CARBON	10K	5%	1/4W	
R188	1-249-419-11	CARBON	1.5K	5%	1/4W	
R189	1-249-419-11	CARBON	1.5K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV101	1-237-753-11	RES, ADJ, CARBON 47K				
RV102	1-237-751-11	RES, ADJ, CARBON 10K				
RV103	1-237-753-11	RES, ADJ, CARBON 47K				
		<TRANSFORMER>				
T101	1-404-493-00	COIL				
T102	1-404-493-00	COIL				
T103	1-404-493-00	COIL				
**********						
	*A-1330-849-A	C BOARD, COMPLETE				
		**********				
	*4-379-160-01	COVER (REAR LID), CV				
	*4-379-167-01	COVER (MAIN), CV				
	*4-386-664-01	SPRING				
		<CAPACITOR>				
C703	1-102-980-00	CERAMIC	270PF	5%	50V	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C705	1-102-978-00	CERAMIC	220PF	5%	50V	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-980-00	CERAMIC	270PF	5%	50V	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C716	1-162-622-11	CERAMIC	330PF	10%	400V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	
		<CONNECTOR>				
CNC71	*1-506-371-00	PIN, CONNECTOR 2P				
CNC72	*1-564-883-11	PLUG, CONNECTOR 6P				
CNC81	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)				
CNC82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
		<DIODE>				
D701	8-719-110-14	DIODE RD9.1ES-B3				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-925-06	DIODE ERC25-06S				
D713	8-719-911-19	DIODE 1SS119				
		<JACK>				
J701	1-526-798-51	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-410-878-21	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-326-11	TRANSISTOR 2SC2611				
Q704	8-729-200-17	TRANSISTOR 2SA1091				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q707	8-729-200-17	TRANSISTOR 2SA1091				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-326-11	TRANSISTOR 2SC2611				
Q710	8-729-200-17	TRANSISTOR 2SA1091				
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/6W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/6W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/6W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-491-00	METAL	820K	1%	1/6W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	

C D

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-237-749-11	RES, ADJ, CARBON 2200				
RV704	1-237-749-11	RES, ADJ, CARBON 2200				
**********						
	*A-1345-720-A	D BOARD, COMPLETE				
		**********				
	*4-341-751-01	EYELET				
	*4-341-752-01	EYELET				
		<CAPACITOR>				
C001	1-102-973-00	CERAMIC	100PF	5%	50V	
C003	1-106-220-00	MYLAR	0.1MF	10%	100V	
C004	1-123-875-11	ELECT	10MF	20%	50V	
C005	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C007	1-106-383-00	MYLAR	0.047MF	10%	100V	
C008	1-101-880-00	CERAMIC	47PF	5%	50V	
C009	1-101-884-00	CERAMIC	56PF	5%	50V	
C010	1-124-122-11	ELECT	100MF	20%	50V	
C011	1-101-004-00	CERAMIC	0.01MF		50V	
C012	1-124-122-11	ELECT	100MF	20%	50V	
C013	1-101-004-00	CERAMIC	0.01MF		50V	
C014	1-124-463-00	ELECT	0.1MF	20%	50V	
C015	1-124-910-11	ELECT	47MF	20%	50V	
C016	1-101-004-00	CERAMIC	0.01MF		50V	
C017	1-123-875-11	ELECT	10MF	20%	50V	
C018	1-102-980-00	CERAMIC	270PF	5%	50V	
C019	1-106-383-00	MYLAR	0.047MF	10%	100V	
C020	1-102-973-00	CERAMIC	100PF	5%	50V	
C021	1-102-973-00	CERAMIC	100PF	5%	50V	
C022	1-124-910-11	ELECT	47MF	20%	50V	
C023	1-124-499-11	ELECT	1MF	20%	50V	
C024	1-124-499-11	ELECT	1MF	20%	50V	
C025	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C026	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C027	1-106-220-00	MYLAR	0.1MF	10%	100V	
C028	1-101-361-00	CERAMIC	150PF	5%	50V	
C029	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C251	1-124-927-11	ELECT	4.7MF	20%	50V	
C252	1-124-927-11	ELECT	4.7MF	20%	50V	
C253	1-124-122-11	ELECT	100MF	20%	50V	
C254	1-124-927-11	ELECT	4.7MF	20%	50V	
C255	1-124-927-11	ELECT	4.7MF	20%	50V	
C256	1-106-220-00	MYLAR	0.1MF	10%	100V	
C257	1-101-004-00	CERAMIC	0.01MF		50V	
C258	1-106-220-00	MYLAR	0.1MF	10%	100V	
C260	1-106-220-00	MYLAR	0.1MF	10%	100V	
C265	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C266	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C401	1-124-910-11	ELECT	47MF	20%	50V	
C403	1-124-910-11	ELECT	47MF	20%	50V	
C501	1-124-927-11	ELECT	4.7MF	20%	50V	
C502	1-124-927-11	ELECT	4.7MF	20%	50V	
C503	1-106-371-00	MYLAR	0.015MF	10%	400V	
C504	1-101-361-00	CERAMIC	150PF	5%	50V	
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V	
C506	1-106-375-12	MYLAR	0.022MF	10%	250V	
C507	1-130-783-00	MYLAR	0.33MF	10%	100V	
C508	1-106-375-12	MYLAR	0.022MF	10%	250V	
C509	1-106-220-00	MYLAR	0.1MF	10%	100V	
C510	1-161-959-00	CERAMIC	22PF	10%	500V	
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C512	1-106-220-00	MYLAR	0.1MF	10%	100V	
C513	1-108-614-11	MYLAR	0.001MF	10%	100V	
C514	1-106-228-00	MYLAR	0.22MF	10%	100V	
C515	1-124-499-11	ELECT	1MF	20%	50V	
C516	1-108-614-11	MYLAR	0.001MF	10%	100V	
C517	1-124-252-00	ELECT	0.33MF	20%	50V	
C518	1-124-902-00	ELECT	0.47MF	20%	50V	
C519	1-136-173-00	FILM	0.47MF	5%	50V	
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C521	1-106-220-00	MYLAR	0.1MF	10%	100V	
C522	1-124-122-11	ELECT	100MF	20%	50V	
C523	1-108-614-11	MYLAR	0.001MF	10%	100V	
C524	1-108-798-11	MYLAR	0.0033MF	5%	50V	
C525	1-102-973-00	CERAMIC	100PF	5%	50V	
C526	1-102-951-00	CERAMIC	15PF	5%	50V	
C527	1-106-220-00	MYLAR	0.1MF	10%	100V	
C531	1-124-190-00	ELECT	680MF	10%	25V	
C532	1-124-122-11	ELECT	100MF	20%	50V	
C533	1-106-216-00	MYLAR	0.068MF	10%	100V	
C534	1-124-120-11	ELECT	220MF	20%	16V	
C536	1-131-365-00	TANTALUM	10MF	10%	16V	
C537	1-124-499-11	ELECT	1MF	20%	50V	
C538	1-108-614-11	MYLAR	0.001MF	10%	100V	
C539	1-102-820-00	CERAMIC	330PF	5%	50V	
C591	1-123-875-11	ELECT	10MF	20%	50V	
C592	1-124-910-11	ELECT	47MF	20%	50V	
C593	1-102-820-00	CERAMIC	330PF	5%	50V	
C601	1-162-599-12	CERAMIC	0.0047MF		250V	
C602	1-162-599-12	CERAMIC	0.0047MF		250V	
C603	1-162-599-12	CERAMIC	0.0047MF		250V	
C604	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V	
C605	1-124-122-11	ELECT	100MF	20%	50V	
C606	1-106-220-00	MYLAR	0.1MF	10%	100V	
C607	1-130-019-00	FILM	0.0012MF	5%	50V	
C608	1-123-875-11	ELECT	10MF	20%	50V	
C611	1-124-122-11	ELECT	100MF	20%	50V	
C612	1-162-115-00	CERAMIC	330PF	10%	2KV	
C613	1-136-539-11	FILM	0.0022MF	3%	2KV	
C614	1-102-030-00	CERAMIC	330PF	10%	500V	
C615	1-124-557-11	ELECT	1000MF	20%	25V	
C616	1-102-030-00	CERAMIC	330PF	10%	500V	
C618	1-124-637-11	ELECT	1000MF	20%	50V	
C619	1-124-556-11	ELECT	2200MF	20%	16V	
C620	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C621	1-124-347-00	ELECT	100MF	20%	160V	
C622	1-124-556-11	ELECT	2200MF	20%	16V	
C623	1-124-910-11	ELECT	47MF	20%	50V	
C624	1-124-122-11	ELECT	100MF	20%	50V	
C625	1-124-360-00	ELECT	1000MF	20%	16V	
C626	1-123-875-11	ELECT	10MF	20%	50V	
C627	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C631	1-123-875-11	ELECT	10MF	20%	50V	
C632	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C633	1-124-927-11	ELECT	4.7MF	20%	50V	
C636	1-123-382-00	ELECT	3.3MF	20%	50V	
C801	1-126-105-11	ELECT	1000MF	20%	35V	
C802	1-102-030-00	CERAMIC	330PF	10%	500V	
C804	1-123-948-00	ELECT	22MF	20%	250V	
C805	1-162-114-00	CERAMIC	0.0047MF		2KV	
C806	1-106-220-00	MYLAR	0.1MF	10%	100V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-124-494-00	ELECT	33MF		160V
C811	1-136-113-00	FILM	2MF	5%	200V
C812	1-124-634-11	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814	1-161-754-00	CERAMIC	0.001MF	10%	2KV
C815	1-136-111-00	FILM	1MF	5%	200V
C817	1-136-565-11	FILM	0.015MF	3%	1.4KV
C818	1-136-759-11	FILM	0.039MF	10%	630V
C819 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C820	1-106-218-00	MYLAR	0.0082MF	10%	400V
C821 ⚠	1-162-116-51	CERAMIC	680PF	10%	2KV
C822	1-102-114-00	CERAMIC	470PF	10%	50V
C823	1-106-359-00	MYLAR	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-106-375-12	MYLAR	0.022MF	10%	250V
C826	1-123-875-11	ELECT	10MF	20%	50V

<FILTER>

CF001	1-567-686-11	OSCILLATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<CONNECTOR>

CN801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CND01	*1-564-884-11	PLUG, CONNECTOR 7P
CND02	*1-564-886-11	PLUG, CONNECTOR 9P
CND11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P
CND12	*1-564-884-11	PLUG, CONNECTOR 7P
CND18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
CND19	*1-564-881-11	PLUG, CONNECTOR 4P
CND21	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P
CND23	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)
CND31	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P
CND41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
CND45	*1-564-882-11	PLUG, CONNECTOR 5P
CND51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
CND64	*1-506-348-XX	PIN, CONNECTOR 3P
CND68	*1-564-879-11	PLUG, CONNECTOR 2P
CND82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CND83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CND84	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P
CND91	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
CND92	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P
CND94	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)

<DIODE>

D001	8-719-911-19	DIODE 1SS119
D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-109-71	DIODE RD3.9ES-B1
D007	8-719-109-89	DIODE RD5.6ES-B2
D008	8-719-110-85	DIODE RD36ES-B4
D009	8-719-109-89	DIODE RD5.6ES-B2
D011	8-719-911-19	DIODE 1SS119
D012	8-719-911-19	DIODE 1SS119
D013	8-719-911-19	DIODE 1SS119
D254	8-719-110-14	DIODE RD9.1ES-B3
D501	8-719-911-19	DIODE 1SS119
D504	8-719-911-55	DIODE U05G
D506	8-719-000-12	DIODE MC931
D508	8-719-911-19	DIODE 1SS119
D509	8-719-911-19	DIODE 1SS119
D511	8-719-911-55	DIODE U05G
D512	8-719-911-55	DIODE U05G
D513	8-719-109-81	DIODE RD4.7ES-B2
D591	8-719-911-19	DIODE 1SS119
D592	8-719-911-19	DIODE 1SS119
D593	8-719-911-19	DIODE 1SS119
D601	8-719-946-90	DIODE KBU4JL-6088
D602	8-719-925-06	DIODE ERC25-06S
D603	8-719-911-55	DIODE U05G
D604	8-719-911-55	DIODE U05G
D605	8-719-911-55	DIODE U05G
D606	8-719-925-06	DIODE ERC25-06S
D607	8-719-925-06	DIODE ERC25-06S
D608	8-719-925-06	DIODE ERC25-06S
D610	8-719-300-59	DIODE CTU-12S
D611	8-719-928-08	DIODE ERD28-06S
D612	8-719-300-59	DIODE CTU-12S
D613	8-719-925-06	DIODE ERC25-06S
D614	8-719-925-06	DIODE ERC25-06S
D615	8-719-109-90	DIODE RD5.6ES-B3
D616	8-719-109-93	DIODE RD6.2ES-B2
D618	8-719-109-89	DIODE RD5.6ES-B2
D620	8-719-000-12	DIODE MC931
D622	8-719-911-19	DIODE 1SS119
D623	8-719-911-19	DIODE 1SS119
D624	8-719-911-19	DIODE 1SS119
D627	8-719-911-19	DIODE 1SS119
D630	8-719-110-39	DIODE RD15ES-B1
D632	8-719-110-16	DIODE RD10ES-B1
D633	8-719-911-19	DIODE 1SS119
D801	8-719-925-06	DIODE ERC25-06S
D802	8-719-925-06	DIODE ERC25-06S
D803	8-719-300-65	DIODE ES1F
D804	8-719-911-55	DIODE U05G
D805	8-719-911-55	DIODE U05G
D806	8-719-945-80	DIODE ERC06-15S
D807	8-719-945-80	DIODE ERC06-15S
D808	8-719-928-08	DIODE ERD28-08S
D809	8-719-925-06	DIODE ERC25-06S

<IC>

IC001	8-759-630-06	IC M50436-614SP
IC002	8-759-979-57	IC MB88503H-1022G
IC003	8-759-603-41	IC M58655P
IC004	8-759-157-40	IC UPC574J
IC251	8-759-803-31	IC LA4280
	*4-368-683-01	SPRING; IC251
IC401	8-752-006-12	IC CX20061
IC501	8-759-970-73	IC TEA2028B
IC502	8-759-944-57	IC TDA8170
	*4-381-724-01	HOLDER, IC; IC502
IC601	8-759-946-23	IC TEA2164
IC608	8-759-700-06	IC UPC7812H

<COIL>

L001	1-408-414-00	INDUCTOR 27UH
L501	1-408-225-00	INDUCTOR 3.3UH
L601	*1-420-872-00	COIL, AIR CORE
L602	1-410-396-41	FERRITE BEAD INDUCTOR

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L605	1-459-442-00	COIL (WITH CORE)	
L606	1-421-013-00	COIL, (HOLIZONTAL CHOKE) 25UH	
L607	1-408-421-00	INDUCTOR 100UH	
L803	1-459-104-00	COIL,DUST CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805	1-459-652-12	HLC	
L806	1-459-115-00	COIL,DCC-H	
L807	1-407-504-00	INDUCTOR 10MMH	
L809	*1-420-872-00	COIL, AIR CORE	
L810	1-459-390-00	COIL (WITH CORE)	
		<IC LINK>	
PS601⚠	1-532-984-91	LINK, IC 2A	
PS602⚠	1-532-675-91	LINK, IC 1.5A	
		<TRANSISTOR>	
Q001	8-729-600-24	TRANSISTOR 2SC403SP-51	
Q002	8-729-173-38	TRANSISTOR 2SA733-K	
Q003	8-729-173-38	TRANSISTOR 2SA733-K	
Q004	8-729-173-38	TRANSISTOR 2SA733-K	
Q252	8-729-900-36	TRANSISTOR DTC124ES	
Q501	8-729-173-38	TRANSISTOR 2SA733-K	
Q502	8-729-173-38	TRANSISTOR 2SA733-K	
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-114-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-173-38	TRANSISTOR 2SA733-K	
Q591	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q598	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-122-03	TRANSISTOR 2SA1220A-Q	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
	*4-368-683-01	SPRING; Q602	
Q603	8-729-820-15	TRANSISTOR 2SB1185-E	
Q604	8-729-308-92	TRANSISTOR 2SD789-03C	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q608	*4-368-683-01	SPRING	
Q609	8-729-308-92	TRANSISTOR 2SD789-03C	
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
	*4-368-683-01	SPRING; Q804	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
		<RESISTOR>	
R001	1-249-417-11	CARBON 1K 5% 1/4W	
R002	1-249-417-11	CARBON 1K 5% 1/4W	
R003	1-249-417-11	CARBON 1K 5% 1/4W	
R004	1-249-417-11	CARBON 1K 5% 1/4W	
R005	1-249-407-11	CARBON 150 5% 1/4W	
R006	1-249-417-11	CARBON 1K 5% 1/4W	
R007	1-249-405-11	CARBON 100 5% 1/4W	
R008	1-249-417-11	CARBON 1K 5% 1/4W	
R009	1-249-417-11	CARBON 1K 5% 1/4W	
R010	1-249-413-11	CARBON 470 5% 1/4W	
R011	1-249-417-11	CARBON 1K 5% 1/4W	
R012	1-249-417-11	CARBON 1K 5% 1/4W	
R013	1-249-417-11	CARBON 1K 5% 1/4W	
R014	1-249-417-11	CARBON 1K 5% 1/4W	
R016	1-249-429-11	CARBON 10K 5% 1/4W	
R017	1-249-417-11	CARBON 1K 5% 1/4W	
R018	1-249-417-11	CARBON 1K 5% 1/4W	
R019	1-249-433-11	CARBON 22K 5% 1/4W	
R020	1-249-433-11	CARBON 22K 5% 1/4W	
R021	1-249-433-11	CARBON 22K 5% 1/4W	
R022	1-249-433-11	CARBON 22K 5% 1/4W	
R023	1-249-429-11	CARBON 10K 5% 1/4W	
R024	1-249-429-11	CARBON 10K 5% 1/4W	
R025	1-249-417-11	CARBON 1K 5% 1/4W	
R026	1-249-417-11	CARBON 1K 5% 1/4W	
R027	1-249-417-11	CARBON 1K 5% 1/4W	
R028	1-249-417-11	CARBON 1K 5% 1/4W	
R029	1-249-417-11	CARBON 1K 5% 1/4W	
R030	1-249-425-11	CARBON 4.7K 5% 1/4W	
R031	1-249-429-11	CARBON 10K 5% 1/4W	
R032	1-249-417-11	CARBON 1K 5% 1/4W	
R033	1-249-413-11	CARBON 470 5% 1/4W	
R034	1-249-413-11	CARBON 470 5% 1/4W	
R035	1-249-431-11	CARBON 15K 5% 1/4W	
R036	1-249-421-11	CARBON 2.2K 5% 1/4W	
R037	1-249-417-11	CARBON 1K 5% 1/4W	
R038	1-249-417-11	CARBON 1K 5% 1/4W	
R039	1-249-417-11	CARBON 1K 5% 1/4W	
R040	1-249-417-11	CARBON 1K 5% 1/4W	
R041	1-249-417-11	CARBON 1K 5% 1/4W	
R042	1-249-417-11	CARBON 1K 5% 1/4W	
R043	1-249-417-11	CARBON 1K 5% 1/4W	
R044	1-249-429-11	CARBON 10K 5% 1/4W	
R045	1-249-417-11	CARBON 1K 5% 1/4W	
R046	1-249-429-11	CARBON 10K 5% 1/4W	
R047	1-249-409-11	CARBON 220 5% 1/4W	
R048	1-249-417-11	CARBON 1K 5% 1/4W	
R049	1-249-417-11	CARBON 1K 5% 1/4W	
R050	1-249-433-11	CARBON 22K 5% 1/4W	
R051	1-249-429-11	CARBON 10K 5% 1/4W	
R052	1-249-439-11	CARBON 68K 5% 1/4W	
R053	1-249-437-11	CARBON 47K 5% 1/4W	
R054	1-249-417-11	CARBON 1K 5% 1/4W	
R056	1-249-440-11	CARBON 82K 5% 1/4W	
R057	1-249-409-11	CARBON 220 5% 1/4W	
R058	1-249-409-11	CARBON 220 5% 1/4W	
R059	1-249-435-11	CARBON 33K 5% 1/4W	
R060	1-249-436-11	CARBON 39K 5% 1/4W	
R061	1-249-417-11	CARBON 1K 5% 1/4W	
R062	1-249-411-11	CARBON 330 5% 1/4W	
R063	1-249-431-11	CARBON 15K 5% 1/4W	
R064	1-249-429-11	CARBON 10K 5% 1/4W	
R067	1-249-413-11	CARBON 470 5% 1/4W	
R068	1-249-421-11	CARBON 2.2K 5% 1/4W	
R069	1-249-423-11	CARBON 3.3K 5% 1/4W	
R070	1-249-417-11	CARBON 1K 5% 1/4W	
R071	1-249-417-11	CARBON 1K 5% 1/4W	
R072	1-249-417-11	CARBON 1K 5% 1/4W	
R073	1-249-417-11	CARBON 1K 5% 1/4W	
R074	1-249-417-11	CARBON 1K 5% 1/4W	
R075	1-249-417-11	CARBON 1K 5% 1/4W	
R077	1-249-413-11	CARBON 470 5% 1/4W	
R078	1-249-423-11	CARBON 3.3K 5% 1/4W	
R079	1-249-435-11	CARBON 33K 5% 1/4W	
R080	1-249-429-11	CARBON 10K 5% 1/4W	
R081	1-249-441-11	CARBON 100K 5% 1/4W	
R082	1-249-409-11	CARBON 220 5% 1/4W	
R083	1-249-429-11	CARBON 10K 5% 1/4W	

D

REF.NO.	PART NO.	DESCRIPTION				REMARK
R084	1-249-413-11	CARBON	470	5%	1/4W	
R085	1-249-429-11	CARBON	10K	5%	1/4W	
R086	1-249-417-11	CARBON	1K	5%	1/4W	
R087	1-249-417-11	CARBON	1K	5%	1/4W	
R088	1-249-425-11	CARBON	4.7K	5%	1/4W	
R090	1-249-413-11	CARBON	470	5%	1/4W	
R091	1-249-409-11	CARBON	220	5%	1/4W	
R093	1-249-429-11	CARBON	10K	5%	1/4W	
R094	1-249-429-11	CARBON	10K	5%	1/4W	
R095	1-249-409-11	CARBON	220	5%	1/4W	
R096	1-249-409-11	CARBON	220	5%	1/4W	
R097	1-249-429-11	CARBON	10K	5%	1/4W	
R098	1-249-429-11	CARBON	10K	5%	1/4W	
R099	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R251	1-249-417-11	CARBON	1K	5%	1/4W	
R252	1-249-413-11	CARBON	470	5%	1/4W	
R253	1-249-413-11	CARBON	470	5%	1/4W	
R255	1-249-385-11	CARBON	2.2	5%	1/4W	F
R256	1-249-385-11	CARBON	2.2	5%	1/4W	F
R260	1-249-393-11	CARBON	10	5%	1/4W	
R261	1-249-429-11	CARBON	10K	5%	1/4W	
R262	1-249-413-11	CARBON	470	5%	1/4W	
R263	1-249-421-11	CARBON	2.2K	5%	1/4W	
R264	1-249-421-11	CARBON	2.2K	5%	1/4W	
R265	1-249-425-11	CARBON	4.7K	5%	1/4W	
R266	1-249-425-11	CARBON	4.7K	5%	1/4W	
R401	1-249-434-11	CARBON	27K	5%	1/4W	
R402	1-249-435-11	CARBON	33K	5%	1/4W	
R410	1-249-413-11	CARBON	470	5%	1/4W	
R411	1-249-413-11	CARBON	470	5%	1/4W	
R412	1-249-413-11	CARBON	470	5%	1/4W	
R500	1-247-897-11	CARBON	560K	5%	1/4W	
R501	1-249-413-11	CARBON	470	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W	
R504	1-215-427-00	METAL	1.8K	1%	1/6W	
R505	1-249-431-11	CARBON	15K	5%	1/4W	
R506	1-249-428-11	CARBON	8.2K	5%	1/4W	
R507	1-247-891-00	CARBON	330K	5%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R511	1-249-429-11	CARBON	10K	5%	1/4W	
R512	1-247-891-00	CARBON	330K	5%	1/4W	
R513	1-249-429-11	CARBON	10K	5%	1/4W	
R514	1-249-409-11	CARBON	220	5%	1/4W	
R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R516	1-249-408-11	CARBON	180	5%	1/4W	
R517	1-249-429-11	CARBON	10K	5%	1/4W	
R518	1-249-437-11	CARBON	47K	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W	
R520	1-249-411-11	CARBON	330	5%	1/4W	
R521	1-249-405-11	CARBON	100	5%	1/4W	
R522	1-215-469-00	METAL	100K	1%	1/6W	
R523	1-249-417-11	CARBON	1K	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W	
R525	1-249-417-11	CARBON	1K	5%	1/4W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-249-408-11	CARBON	180	5%	1/4W	
R529	1-249-427-11	CARBON	6.8K	5%	1/4W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-247-881-00	CARBON	120K	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W	
R534	1-247-901-11	CARBON	820K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R535	1-249-749-00	CARBON	4.2M	5%	1/4W	
R536	1-249-749-00	CARBON	2.2M	5%	1/4W	
R537	1-249-434-11	CARBON	27K	5%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-247-883-00	CARBON	150K	5%	1/4W	
R540	1-249-399-11	CARBON	33	5%	1/4W	
R541	1-249-438-11	CARBON	56K	5%	1/4W	
R542	1-249-425-11	CARBON	4.7K	5%	1/4W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-249-433-11	CARBON	22K	5%	1/4W	
R546	1-249-434-11	CARBON	27K	5%	1/4W	
R547	1-249-423-11	CARBON	3.3K	5%	1/4W	
R548	1-216-349-11	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-249-440-11	CARBON	82K	5%	1/4W	
R551	1-249-749-00	CARBON	2.2M	5%	1/4W	
R553	1-216-869-11	METAL OXIDE	1K	5%	1W	
R554	1-249-411-11	CARBON	330	5%	1/4W	
R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R558	1-247-895-00	CARBON	470K	5%	1/4W	
R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R560	1-249-411-11	CARBON	330	5%	1/4W	
R591	1-249-427-11	CARBON	6.8K	5%	1/4W	
R592	1-249-429-11	CARBON	10K	5%	1/4W	
R593	1-249-429-11	CARBON	10K	5%	1/4W	
R594	1-249-424-11	CARBON	3.9K	5%	1/4W	
R595	1-249-417-11	CARBON	1K	5%	1/4W	
R596	1-249-425-11	CARBON	4.7K	5%	1/4W	
R597	1-249-425-11	CARBON	4.7K	5%	1/4W	
R598	1-249-405-11	CARBON	100	5%	1/4W	
R599	1-249-405-11	CARBON	100	5%	1/4W	
R602	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R603	1-216-359-00	METAL OXIDE	6.8	5%	1W	F
R604	1-249-414-11	CARBON	560	5%	1/4W	
R605	1-215-469-00	METAL	100K	1%	1/6W	
R606	1-249-426-11	CARBON	5.6K	5%	1/4W	
R607	1-249-434-11	CARBON	27K	5%	1/4W	
R608	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R609	1-249-401-11	CARBON	47	5%	1/4W	
R610	1-249-393-11	CARBON	10	5%	1/4W	F
R611	1-249-385-11	CARBON	2.2	5%	1/4W	F
R612	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R613	1-249-401-11	CARBON	47	5%	1/4W	
R614	1-205-919-11	WIREWOUND	220	10%	10W	F
R616	1-249-417-11	CARBON	1K	5%	1/4W	
R617	1-249-411-11	CARBON	330	5%	1/4W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	
R619	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-433-11	CARBON	22K	5%	1/4W	
R621	1-249-431-11	CARBON	15K	5%	1/4W	
R622	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-385-11	CARBON	2.2	5%	1/4W	F
R624	1-249-411-11	CARBON	330	5%	1/4W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	
R626	1-249-411-11	CARBON	330	5%	1/4W	
R628	1-249-393-11	CARBON	10	5%	1/4W	
R629	1-249-411-11	CARBON	330	5%	1/4W	
R630	1-249-437-11	CARBON	47K	5%	1/4W	
R633	1-249-405-11	CARBON	100	5%	1/4W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	

D **V**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R635	1-249-429-11	CARBON	10K	5%	1/4W	
R636	1-249-429-11	CARBON	10K	5%	1/4W	
R642	1-216-343-00	METAL OXIDE	0.33	5%	1W	F
R643	1-217-192-21	WIREWOUND	0.22	10%	2W	F
R647	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R648	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R649	1-249-385-11	CARBON	2.2	5%	1/4W	
R650	1-249-417-11	CARBON	1K	5%	1/4W	
R651	1-249-405-11	CARBON	100	5%	1/4W	
R652	1-247-903-00	CARBON	1M	5%	1/4W	
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-249-439-11	CARBON	68K	5%	1/4W	
R807	1-216-869-11	METAL OXIDE	1K	5%	1W	
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	
R812	1-249-494-11	CARBON	68K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	
R817	1-249-417-11	CARBON	1K	5%	1/4W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F
R822	1-217-778-11	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-249-429-11	CARBON	10K	5%	1/4W	
R828	1-249-423-11	CARBON	3.3K	5%	1/4W	
R829	1-249-416-11	CARBON	820	5%	1/4W	
R830	1-249-429-11	CARBON	10K	5%	1/4W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R1001	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1002	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1003	1-249-413-11	CARBON	470	5%	1/4W	
R1005	1-249-408-11	CARBON	180	5%	1/4W	
R1006	1-249-408-11	CARBON	180	5%	1/4W	
R1007	1-249-408-11	CARBON	180	5%	1/4W	
R1008	1-249-409-11	CARBON	220	5%	1/4W	
R1009	1-249-417-11	CARBON	1K	5%	1/4W	
R1012	1-249-405-11	CARBON	100	5%	1/4W	
R5501	1-249-429-11	CARBON	10K	5%	1/4W	
R5502	1-249-417-11	CARBON	1K	5%	1/4W	
R5503	1-249-389-11	CARBON	4.7	5%	1/4W	
R5504	1-247-903-00	CARBON	1M	5%	1/4W	
R5505	1-249-393-11	CARBON	10	5%	1/4W	

<VARIABLE RESISTOR>

RV501	1-228-991-00	RES, ADJ, CARBON 2.2K
RV502	1-228-994-00	RES, ADJ, CARBON 10K
RV601	1-228-991-00	RES, ADJ, CARBON 2.2K

<SPARK GAP>

SG801	1-519-063-XX	DISCHARGING GAP

<TRANSFORMER>

T601 ⚠	1-448-961-31	S.R.T
T602 ⚠	1-424-011-12	TRANSFORMER, PULSE
T801	1-437-090-00	HDT
T802 ⚠	1-439-416-11	TRANSFORMER ASSY, FLYBACK

<TERMINAL PIN>

REF.NO.	PART NO.	DESCRIPTION	REMARK
TP91	*1-535-084-00	1P TERMINAL PIN	

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	*A-1347-030-A	V BOARD, COMPLETE	
		**********	
	*4-380-698-01	CASE (MAIN), SHIELD, A1	
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1	
	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2	

<CAPACITOR>

C01	1-126-101-11	ELECT	100MF	20%	16V
C02	1-124-120-11	ELECT	220MF	20%	16V
C03	1-124-119-00	ELECT	330MF	20%	16V
C04	1-124-477-11	ELECT	47MF	20%	16V
C05	1-126-101-11	ELECT	100MF	20%	16V
C06	1-124-120-11	ELECT	220MF	20%	16V
C07	1-124-499-11	ELECT	1MF	20%	50V
C08	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C10	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C11	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C12	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C13	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C14	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C15	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C16	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C17	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C18	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C19	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C20	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C21	1-163-833-00	CERAMIC CHIP	0.068MF		25V
C24	1-126-101-11	ELECT	100MF	20%	16V
C25	1-124-477-11	ELECT	47MF	20%	16V
C27	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C28	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C29	1-124-927-11	ELECT	4.7MF	20%	50V
C51	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C52	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C53	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C54	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C55	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C56	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C57	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C58	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C59	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V

<CONNECTOR>

CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
V1	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
V2	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P
V3	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P
V4	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)
V5	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)

<TRIMMER>

CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)

<DIODE>

D01	8-719-400-47	DIODE MA3056M

V J1

REF.NO.	PART NO.	DESCRIPTION	REMARK
D02	8-719-400-95	DIODE MA3130L	
D03	8-719-400-18	DIODE MA152WK	
D04	8-719-105-52	DIODE RD3.6M-B2	
D07	8-719-400-63	DIODE MA3068M	
D08	8-719-400-63	DIODE MA3068M	
D09	8-719-400-18	DIODE MA152WK	
D10	8-719-400-18	DIODE MA152WK	
D11	8-719-914-44	DIODE DAP202K	
D12	8-719-914-44	DIODE DAP202K	
		<IC>	
IC1	8-759-972-41	IC MAB8461P-W136	
IC2	8-759-972-96	IC SAA5231-V6	
IC3	8-759-013-21	IC SDA5241	
IC4	8-759-230-68	IC TMM2063P-70	
		<COIL>	
L01	1-408-411-00	INDUCTOR 15UH	
L02	1-408-407-00	INDUCTOR 6.8UH	
L03	1-408-407-00	INDUCTOR 6.8UH	
L04	1-408-407-00	INDUCTOR 6.8UH	
L05	1-408-407-00	INDUCTOR 6.8UH	
L06	1-408-407-00	INDUCTOR 6.8UH	
		<TRANSISTOR>	
Q01	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q02	8-729-807-50	TRANSISTOR 2SD1623-R	
Q03	8-729-900-53	TRANSISTOR DTC114EK	
Q04	8-729-271-22	TRANSISTOR 2SC2712-G	
Q05	8-729-807-50	TRANSISTOR 2SD1623-R	
Q06	8-729-271-22	TRANSISTOR 2SC2712-G	
Q07	8-729-900-98	TRANSISTOR DTC143TK	
Q09	8-729-800-68	TRANSISTOR 2SB815B6	
Q10	8-729-800-68	TRANSISTOR 2SB815B6	
Q11	8-729-800-68	TRANSISTOR 2SB815B6	
		<RESISTOR>	
R01	1-218-326-11	METAL GLAZE 470 1/2W	
R02	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R04	1-218-326-11	METAL GLAZE 470 1/2W	
R05	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R06	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R07	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R08	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R09	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R13	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R14	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R15	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R16	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R17	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R18	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R19	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R20	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R27	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R28	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R29	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R30	1-218-325-11	METAL GLAZE 120 1/4W	
R31	1-218-325-11	METAL GLAZE 120 1/4W	
R32	1-218-325-11	METAL GLAZE 120 1/4W	
R33	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R34	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R37	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R38	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R40	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R41	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R43	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R44	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R45	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R46	1-216-311-00	METAL GLAZE 6.8 5% 1/10W	
R51	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R52	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R53	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R54	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R55	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R56	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R57	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R58	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R59	1-216-056-00	METAL GLAZE 2K 5% 1/10W	
R60	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R61	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R62	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R63	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R64	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R65	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R66	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R67	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R68	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R69	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
		<VARIABLE RESISTOR>	
RV01	1-238-009-11	RES, ADJ, CARBON 220	
		<CRYSTAL>	
X01	1-567-162-21	OSCILLATOR, CRYSTAL	
X02	1-567-495-21	OSCILLATOR, CRYSTAL	
X03	1-577-082-11	VIBRATOR, CERAMIC	

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*A-1371-373-A J1 BOARD, COMPLETE

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<CAPACITOR>

C1401	1-123-875-11	ELECT	10MF	20%	50V
C1402	1-126-103-11	ELECT	470MF	20%	16V
C1403	1-102-112-00	CERAMIC	330PF	10%	50V
C1404	1-124-902-00	ELECT	0.47MF	20%	50V
C1405	1-101-003-00	CERAMIC	0.0047MF		50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V
C1407	1-124-477-11	ELECT	47MF	20%	16V
C1408	1-126-101-11	ELECT	100MF	20%	16V
C1409	1-126-233-11	ELECT	22MF	20%	50V
C1410	1-123-875-11	ELECT	10MF	20%	50V
C1411	1-123-875-11	ELECT	10MF	20%	50V
C1412	1-124-477-11	ELECT	47MF	20%	16V
C1413	1-124-477-11	ELECT	47MF	20%	16V
C1414	1-123-875-11	ELECT	10MF	20%	50V
C1415	1-124-902-00	ELECT	0.47MF	20%	50V
C1416	1-124-902-00	ELECT	0.47MF	20%	50V
C1417	1-124-120-11	ELECT	220MF	20%	16V
C1418	1-102-112-00	CERAMIC	330PF	10%	50V
C1419	1-102-112-00	CERAMIC	330PF	10%	50V
C1421	1-124-477-11	ELECT	47MF	20%	16V

J1

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1423	1-106-375-12	MYLAR	0.022MF	10%	250V	
C1424	1-106-375-12	MYLAR	0.022MF	10%	250V	
C1425	1-124-902-00	ELECT	0.47MF	20%	50V	
C1426	1-124-902-00	ELECT	0.47MF	20%	50V	
C1427	1-101-003-00	CERAMIC	0.0047MF		50V	
C1428	1-101-003-00	CERAMIC	0.0047MF		50V	
C1429	1-101-003-00	CERAMIC	0.0047MF		50V	
C1430	1-102-112-00	CERAMIC	330PF	10%	50V	
C1431	1-124-902-00	ELECT	0.47MF	20%	50V	
C1432	1-124-902-00	ELECT	0.47MF	20%	50V	
C1433	1-126-101-11	ELECT	100MF	20%	16V	
C1436	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1437	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1501	1-123-875-11	ELECT	10MF	20%	50V	
C1502	1-123-875-11	ELECT	10MF	20%	50V	
C1503	1-108-614-11	MYLAR	0.001MF	10%	100V	
C1504	1-124-910-11	ELECT	47MF	20%	50V	
C1505	1-106-383-00	MYLAR	0.047MF	10%	100V	
C1507	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C1508	1-123-875-11	ELECT	10MF	20%	50V	
C1509	1-124-499-11	ELECT	1MF	20%	50V	
C1511	1-123-875-11	ELECT	10MF	20%	50V	
C1512	1-106-363-00	MYLAR	0.0068MF	10%	400V	
C1513	1-102-963-00	CERAMIC	33PF	5%	50V	
C1514	1-106-353-00	MYLAR	0.027MF	10%	250V	
C1515	1-102-117-00	CERAMIC	820PF	10%	50V	

<CONNECTOR>

CN1401	1-536-996-11	TERMINAL BOARD, INPUT/OUTPUT	
CN1402	1-561-534-41	SOCKET 21P	
CN1403	1-561-534-41	SOCKET 21P	
CNJ25	*1-564-892-41	PLUG, CONNECTOR 3P	
CNJ41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
CNJ43	*1-564-893-11	PLUG, CONNECTOR 4P	
CNJ45	*1-564-894-11	PLUG, CONNECTOR 5P	
CNJ51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
CNJ67	*1-560-721-21	PLUG, CONNECTOR 2P	
CNJ142	*1-564-893-11	PLUG, CONNECTOR 4P	

<DIODE>

D1401	8-719-110-04	DIODE RD7.5ES-B3	
D1403	8-719-110-04	DIODE RD7.5ES-B3	
D1404	8-719-110-04	DIODE RD7.5ES-B3	
D1405	8-719-110-04	DIODE RD7.5ES-B3	
D1406	8-719-110-04	DIODE RD7.5ES-B3	
D1407	8-719-110-18	DIODE RD10ES-B3	
D1408	8-719-110-14	DIODE RD9.1ES-B3	
D1409	8-719-110-04	DIODE RD7.5ES-B3	
D1410	8-719-110-04	DIODE RD7.5ES-B3	
D1415	8-719-110-04	DIODE RD7.5ES-B3	
D1418	8-719-110-04	DIODE RD7.5ES-B3	
D1419	8-719-110-04	DIODE RD7.5ES-B3	
D1420	8-719-110-04	DIODE RD7.5ES-B3	
D1501	8-719-912-20	DIODE 1SS120	
D1502	8-719-911-19	DIODE 1SS119	
D1503	8-719-911-19	DIODE 1SS119	
D1504	8-719-911-19	DIODE 1SS119	
D1505	8-719-000-12	DIODE MC931	
D1506	8-719-110-85	DIODE RD36ES-B4	
D1507	8-719-911-19	DIODE 1SS119	

<IC>

IC1401	8-752-032-27	IC CXA1114P	
IC1402	8-759-946-32	IC TEA2014A	
IC1501	8-759-942-16	IC TEA2031A	

<COIL>

L1401	1-412-043-11	INDUCTOR, WIDE BAND	
L1402	1-412-043-11	INDUCTOR, WIDE BAND	

<TRANSISTOR>

Q1401	8-729-173-38	TRANSISTOR 2SA733-K	
Q1402	8-729-173-38	TRANSISTOR 2SA733-K	

<RESISTOR>

R1401	1-249-404-00	CARBON	82	5%	1/4W	
R1402	1-247-698-11	CARBON	68	5%	1/4W	
R1403	1-249-437-11	CARBON	47K	5%	1/4W	
R1404	1-249-413-11	CARBON	470	5%	1/4W	
R1405	1-249-429-11	CARBON	10K	5%	1/4W	
R1407	1-247-895-00	CARBON	470K	5%	1/4W	
R1408	1-249-434-11	CARBON	27K	5%	1/4W	
R1409	1-249-413-11	CARBON	470	5%	1/4W	
R1410	1-249-434-11	CARBON	27K	5%	1/4W	
R1411	1-249-413-11	CARBON	470	5%	1/4W	
R1412	1-249-437-11	CARBON	47K	5%	1/4W	
R1413	1-247-895-00	CARBON	470K	5%	1/4W	
R1414	1-249-437-11	CARBON	47K	5%	1/4W	
R1415	1-249-434-11	CARBON	27K	5%	1/4W	
R1416	1-249-434-11	CARBON	27K	5%	1/4W	
R1417	1-249-404-00	CARBON	82	5%	1/4W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1419	1-249-409-11	CARBON	220	5%	1/4W	
R1420	1-249-409-11	CARBON	220	5%	1/4W	
R1422	1-249-417-11	CARBON	1K	5%	1/4W	
R1423	1-249-434-11	CARBON	27K	5%	1/4W	
R1424	1-249-434-11	CARBON	27K	5%	1/4W	
R1425	1-249-417-11	CARBON	1K	5%	1/4W	
R1426	1-249-417-11	CARBON	1K	5%	1/4W	
R1427	1-249-417-11	CARBON	1K	5%	1/4W	
R1428	1-247-895-00	CARBON	470K	5%	1/4W	
R1429	1-247-895-00	CARBON	470K	5%	1/4W	
R1430	1-247-699-11	METAL	82	5%	1/4W	
R1433	1-249-409-11	CARBON	220	5%	1/4W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-249-429-11	CARBON	10K	5%	1/4W	
R1440	1-249-415-11	CARBON	680	5%	1/4W	
R1441	1-249-415-11	CARBON	680	5%	1/4W	
R1442	1-249-437-11	CARBON	47K	5%	1/4W	
R1443	1-249-437-11	CARBON	47K	5%	1/4W	
R1444	1-249-409-11	CARBON	220	5%	1/4W	
R1445	1-249-440-11	CARBON	82K	5%	1/4W	
R1447	1-249-409-11	CARBON	220	5%	1/4W	
R1448	1-249-409-11	CARBON	220	5%	1/4W	
R1452	1-249-412-11	CARBON	390	5%	1/4W	
R1453	1-249-412-11	CARBON	390	5%	1/4W	
R1454	1-247-703-11	METAL	180	5%	1/4W	
R1455	1-247-703-11	METAL	180	5%	1/4W	
R1456	1-249-405-11	CARBON	100	5%	1/4W	
R1501	1-249-433-11	CARBON	22K	5%	1/4W	
R1502	1-249-434-11	CARBON	27K	5%	1/4W	
R1503	1-247-895-00	CARBON	470K	5%	1/4W	

SECTION 7
ELECTRICAL PARTS LIST

B

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

Note) In this parts list, the mounting diagram is for a different product.
Therefore, an excess of parts is listed.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1135-498-A	B BOARD, COMPLETE **********			
		<CAPACITOR>			
C301	1-106-228-00	MYLAR	0.22MF	10% 100V	
C302	1-106-228-00	MYLAR	0.22MF	10% 100V	
C303	1-126-101-11	ELECT	100MF	20% 16V	
C304	1-106-228-00	MYLAR	0.22MF	10% 100V	
C305	1-124-119-00	ELECT	330MF	20% 16V	
C306	1-124-902-00	ELECT	0.47MF	20% 50V	
C307	1-124-902-00	ELECT	0.47MF	20% 50V	
C308	1-124-902-00	ELECT	0.47MF	20% 50V	
C309	1-124-902-00	ELECT	0.47MF	20% 50V	
C310	1-106-220-00	MYLAR	0.1MF	10% 100V	
C311	1-106-220-00	MYLAR	0.1MF	10% 100V	
C312	1-124-902-00	ELECT	0.47MF	20% 50V	
C313	1-124-902-00	ELECT	0.47MF	20% 50V	
C314	1-124-902-00	ELECT	0.47MF	20% 50V	
C315	1-124-499-11	ELECT	1MF	20% 50V	
C319	1-124-477-11	ELECT	47MF	20% 16V	
C321	1-102-980-00	CERAMIC	270PF	5% 50V	
C322	1-101-888-00	CERAMIC	68PF	5% 50V	
C325	1-124-477-11	ELECT	47MF	20% 16V	
C326	1-101-004-00	CERAMIC	0.01MF	50V	
C327	1-101-004-00	CERAMIC	0.01MF	50V	
C330	1-101-004-00	CERAMIC	0.01MF	50V	
C331	1-124-963-11	ELECT	33MF	20% 16V	
C332	1-124-119-00	ELECT	330MF	20% 16V	
C333	1-101-005-00	CERAMIC	0.022MF	50V	
C334	1-101-884-00	CERAMIC	56PF	5% 50V	
C335	1-101-006-00	CERAMIC	0.047MF	50V	
C336	1-106-367-00	MYLAR	0.01MF	10% 400V	
C337	1-101-004-00	CERAMIC	0.01MF	50V	
C338	1-101-888-00	CERAMIC	68PF	5% 50V	
C339	1-102-816-00	CERAMIC	120PF	5% 50V	
C340	1-102-953-00	CERAMIC	18PF	5% 50V	
C341	1-102-978-00	CERAMIC	220PF	5% 50V	
C342	1-102-953-00	CERAMIC	18PF	5% 50V	
C343	1-102-816-00	CERAMIC	120PF	5% 50V	
C344	1-101-888-00	CERAMIC	68PF	5% 50V	
C345	1-102-978-00	CERAMIC	220PF	5% 50V	
C346	1-102-074-00	CERAMIC	0.001MF	10% 50V	
C347	1-124-499-11	ELECT	1MF	20% 50V	
C348	1-124-499-11	ELECT	1MF	20% 50V	
C349	1-136-173-00	FILM	0.47MF	5% 50V	
C350	1-106-383-00	MYLAR	0.047MF	10% 100V	
C351	1-106-375-12	MYLAR	0.022MF	10% 250V	
C352	1-106-375-12	MYLAR	0.022MF	10% 250V	
C354	1-102-074-00	CERAMIC	0.001MF	10% 50V	
C355	1-102-816-00	CERAMIC	120PF	5% 50V	
C357	1-102-965-00	CERAMIC	39PF	5% 50V	
C358	1-124-963-11	ELECT	33MF	20% 16V	
C359	1-102-963-00	CERAMIC	33PF	5% 50V	
C360	1-101-004-00	CERAMIC	0.01MF	50V	
C361	1-101-004-00	CERAMIC	0.01MF	50V	
C364	1-101-361-00	CERAMIC	150PF	5% 50V	
C365	1-124-477-11	ELECT	47MF	20% 16V	
C366	1-124-477-11	ELECT	47MF	20% 16V	
C367	1-101-004-00	CERAMIC	0.01MF	50V	
C368	1-101-880-00	CERAMIC	47PF	5% 50V	
C381	1-124-902-00	ELECT	0.47MF	20% 50V	
C382	1-124-927-11	ELECT	4.7MF	20% 50V	
C384	1-124-477-11	ELECT	47MF	20% 16V	
C385	1-124-927-11	ELECT	4.7MF	20% 50V	
C387	1-124-902-00	ELECT	0.47MF	20% 50V	
C1311	1-101-884-00	CERAMIC	56PF	5% 50V	
		<CONNECTOR>			
CNB31	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P			
CNB72	*1-564-895-11	PLUG, CONNECTOR 6P			
CNB93	*1-560-278-41	PLUG, CONNECTOR 6P			
		<TRIMMER>			
CT331	1-141-181-11	CAP, TRIMMER			
CT332	1-141-181-11	CAP, TRIMMER			
		<DIODE>			
D301	8-719-911-19	DIODE 1SS119			
D302	8-719-911-19	DIODE 1SS119			
D303	8-719-911-19	DIODE 1SS119			
D304	8-719-911-19	DIODE 1SS119			
D305	8-719-911-19	DIODE 1SS119			
D307	8-719-110-23	DIODE RD11ES-B3			
D309	8-719-911-19	DIODE 1SS119			
D331	8-719-911-19	DIODE 1SS119			
D333	8-719-911-19	DIODE 1SS119			
D341	8-719-911-19	DIODE 1SS119			
		<DELAY LINE>			
DL331	1-415-122-00	DELAY LINE			
DL332	1-236-062-11	MODULE, Y DELAY LINE			
		<IC>			
IC301	8-759-979-85	IC TDA4580-V4			
IC302	8-759-980-60	IC TDA8442-N3			
IC331	8-759-947-20	IC TDA4555-V8			

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<COIL>				
L301	1-410-868-21	INDUCTOR	4.7UH			
L302	1-410-868-21	INDUCTOR	4.7UH			
L303	1-408-408-00	INDUCTOR	8.2UH			
L304	1-408-409-00	INDUCTOR	10UH			
L331	1-408-408-00	INDUCTOR	8.2UH			
L332	1-404-539-11	COIL				
L333	1-404-554-11	COIL				
L334	1-404-554-11	COIL				
L335	1-404-554-11	COIL				
L336	1-408-417-00	INDUCTOR	47UH			
L338	1-408-416-00	INDUCTOR	39UH			
L339	1-410-868-21	INDUCTOR	4.7UH			
		<TRANSISTOR>				
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q305	8-729-900-36	TRANSISTOR	DTC124ES			
Q306	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q311	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q312	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q313	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q316	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q331	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q332	8-729-900-36	TRANSISTOR	DTC124ES			
Q333	8-729-900-36	TRANSISTOR	DTC124ES			
Q334	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q335	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q336	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q381	8-729-900-36	TRANSISTOR	DTC124ES			
Q382	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q1306	8-729-173-38	TRANSISTOR	2SA733-K			
		<RESISTOR>				
R301	1-249-409-11	CARBON	220	5%	1/4W	
R302	1-249-409-11	CARBON	220	5%	1/4W	
R303	1-249-409-11	CARBON	220	5%	1/4W	
R304	1-249-409-11	CARBON	220	5%	1/4W	
R305	1-249-421-11	CARBON	2.2K	5%	1/4W	
R307	1-249-441-11	CARBON	100K	5%	1/4W	
R308	1-249-414-11	CARBON	560	5%	1/4W	
R309	1-249-405-11	CARBON	100	5%	1/4W	
R310	1-249-405-11	CARBON	100	5%	1/4W	
R311	1-249-405-11	CARBON	100	5%	1/4W	
R312	1-249-409-11	CARBON	220	5%	1/4W	
R313	1-249-433-11	CARBON	22K	5%	1/4W	
R314	1-249-413-11	CARBON	470	5%	1/4W	
R315	1-249-407-11	CARBON	150	5%	1/4W	
R316	1-249-407-11	CARBON	150	5%	1/4W	
R317	1-249-407-11	CARBON	150	5%	1/4W	
R318	1-249-429-11	CARBON	10K	5%	1/4W	
R319	1-249-409-11	CARBON	220	5%	1/4W	
R320	1-249-417-11	CARBON	1K	5%	1/4W	
R321	1-249-421-11	CARBON	2.2K	5%	1/4W	
R322	1-249-420-11	CARBON	1.8K	5%	1/4W	
R323	1-249-421-11	CARBON	2.2K	5%	1/4W	
R324	1-249-426-11	CARBON	5.6K	5%	1/4W	
R325	1-249-429-11	CARBON	10K	5%	1/4W	
R326	1-249-419-11	CARBON	1.5K	5%	1/4W	
R327	1-249-427-11	CARBON	6.8K	5%	1/4W	
R328	1-249-397-11	CARBON	22	5%	1/4W	
R329	1-249-397-11	CARBON	22	5%	1/4W	
R330	1-249-397-11	CARBON	22	5%	1/4W	
R331	1-249-418-11	CARBON	1.2K	5%	1/4W	
R332	1-249-401-11	CARBON	47	5%	1/4W	
R333	1-249-412-11	CARBON	390	5%	1/4W	
R334	1-249-408-11	CARBON	180	5%	1/4W	
R335	1-249-415-11	CARBON	680	5%	1/4W	
R336	1-249-418-11	CARBON	1.2K	5%	1/4W	
R337	1-247-848-11	CARBON	5.1K	5%	1/4W	
R338	1-249-429-11	CARBON	10K	5%	1/4W	
R339	1-249-409-11	CARBON	220	5%	1/4W	
R340	1-249-437-11	CARBON	47K	5%	1/4W	
R341	1-249-410-11	CARBON	270	5%	1/4W	
R342	1-249-429-11	CARBON	10K	5%	1/4W	
R343	1-249-429-11	CARBON	10K	5%	1/4W	
R344	1-249-437-11	CARBON	47K	5%	1/4W	
R346	1-249-419-11	CARBON	1.5K	5%	1/4W	
R347	1-249-429-11	CARBON	10K	5%	1/4W	
R348	1-249-437-11	CARBON	47K	5%	1/4W	
R349	1-249-415-11	CARBON	680	5%	1/4W	
R350	1-249-415-11	CARBON	680	5%	1/4W	
R351	1-249-409-11	CARBON	220	5%	1/4W	
R352	1-247-891-00	CARBON	330K	5%	1/4W	
R353	1-247-891-00	CARBON	330K	5%	1/4W	
R354	1-249-409-11	CARBON	220	5%	1/4W	
R355	1-249-423-11	CARBON	3.3K	5%	1/4W	
R356	1-249-427-11	CARBON	6.8K	5%	1/4W	
R358	1-249-409-11	CARBON	220	5%	1/4W	
R359	1-249-437-11	CARBON	47K	5%	1/4W	
R360	1-249-437-11	CARBON	47K	5%	1/4W	
R361	1-249-418-11	CARBON	1.2K	5%	1/4W	
R363	1-249-410-11	CARBON	270	5%	1/4W	
R364	1-249-417-11	CARBON	1K	5%	1/4W	
R365	1-249-417-11	CARBON	1K	5%	1/4W	
R367	1-249-409-11	CARBON	220	5%	1/4W	
R368	1-249-417-11	CARBON	1K	5%	1/4W	
R369	1-249-417-11	CARBON	1K	5%	1/4W	
R370	1-249-418-11	CARBON	1.2K	5%	1/4W	
R371	1-249-417-11	CARBON	1K	5%	1/4W	
R376	1-249-429-11	CARBON	10K	5%	1/4W	
R378	1-249-441-11	CARBON	100K	5%	1/4W	
R379	1-249-441-11	CARBON	100K	5%	1/4W	
R380	1-249-426-11	CARBON	5.6K	5%	1/4W	
R381	1-249-439-11	CARBON	68K	5%	1/4W	
R382	1-247-885-00	CARBON	180K	5%	1/4W	
R383	1-247-893-11	CARBON	390K	5%	1/4W	
R385	1-249-435-11	CARBON	33K	5%	1/4W	
R389	1-247-883-00	CARBON	150K	5%	1/4W	
R390	1-249-411-11	CARBON	330	5%	1/4W	
R391	1-249-404-00	CARBON	82	5%	1/4W	
R392	1-249-402-11	CARBON	56	5%	1/4W	
R393	1-249-402-11	CARBON	56	5%	1/4W	
R394	1-249-402-11	CARBON	56	5%	1/4W	
R398	1-249-433-11	CARBON	22K	5%	1/4W	
R1324	1-249-419-11	CARBON	1.5K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV331	1-238-009-11	RES, ADJ, CARBON 220				

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

B F2 F1 A

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<TRANSFORMER>				
T331	1-404-584-11	COIL				
		<CRYSTAL>				
X331	1-567-307-11	OSCILLATOR, CRYSTAL				
X332	1-567-131-00	OSCILLATOR, CRYSTAL				
**********						
	*1-629-720-21	F2 BOARD ********				
		<CONNECTOR>				
CNF262	*1-566-664-11	PIN, CONNECTOR 4P				
		<SWITCH>				
S1701⚠	1-571-410-11	SWITCH, PUSH (AC POWER)(1 KEY)				
**********						
	*1-629-719-21	F1 BOARD ********				
		<CAPACITOR>				
C1601⚠	1-136-518-11	FILM	0.33MF	20%	300V	
C1602⚠	1-136-519-11	FILM	0.47MF	20%	300V	
C1603⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1604⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1605⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1606⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1607⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
		<CONNECTOR>				
CNF61	*1-566-664-11	PIN, CONNECTOR 4P				
CNF64	*1-506-348-XX	PIN, CONNECTOR 3P				
CNF65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CNF66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P				
CNF67	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
CNF162	*1-506-348-XX	PIN, CONNECTOR 4P				
		<FUSE>				
F1601⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V				
	1-533-087-00	HOLDER, FUSE; F1601				
		<FILTER>				
⚠LF1601	1-421-866-12	LFT				
⚠LF1602	1-421-776-11	LFT				
⚠LF1603	1-421-592-11	TRANSFORMER, FERRITE				
		<RESISTOR>				
R1601⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1605⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
		<THERMISTOR>				
⚠THP601	1-808-059-31	THERMISTOR, POSITIVE				
**********						
	*A-1296-476-A	A BOARD, COMPLETE **********				
	⚠1-465-053-11	TUNER, ET (UV-615S)				
	*4-380-698-01	CASE (MAIN), SHIELD, A1				
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1				
	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2				
		<CAPACITOR>				
C101	1-126-233-11	ELECT	22MF	20%	50V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C103	1-106-220-00	MYLAR	0.1MF	10%	100V	
C104	1-106-216-00	MYLAR	0.068MF	10%	100V	
C105	1-106-216-00	MYLAR	0.068MF	10%	100V	
C106	1-101-004-00	CERAMIC	0.01MF		50V	
C107	1-102-963-00	CERAMIC	33PF	5%	50V	
C108	1-124-963-11	ELECT	33MF	20%	16V	
C109	1-101-003-00	CERAMIC	0.0047MF		50V	
C110	1-124-499-11	ELECT	1MF	20%	50V	
C111	1-101-003-00	CERAMIC	0.0047MF		50V	
C112	1-101-003-00	CERAMIC	0.0047MF		50V	
C113	1-101-003-00	CERAMIC	0.0047MF		50V	
C114	1-124-963-11	ELECT	33MF	20%	16V	
C118	1-101-880-00	CERAMIC	47PF	5%	50V	
C119	1-126-101-11	ELECT	100MF	20%	16V	
C120	1-124-925-11	ELECT	2.2MF	20%	50V	
C121	1-101-003-00	CERAMIC	0.0047MF		50V	
C122	1-101-003-00	CERAMIC	0.0047MF		50V	
C123	1-101-003-00	CERAMIC	0.0047MF		50V	
C124	1-101-888-00	CERAMIC	68PF	5%	50V	
C125	1-101-888-00	CERAMIC	68PF	5%	50V	
C127	1-101-003-00	CERAMIC	0.0047MF		50V	
C128	1-124-963-11	ELECT	33MF	20%	16V	
C129	1-101-888-00	CERAMIC	68PF	5%	50V	
C130	1-101-004-00	CERAMIC	0.01MF		50V	
C131	1-101-006-00	CERAMIC	0.047MF		50V	
C132	1-124-499-11	ELECT	1MF	20%	50V	
C133	1-101-003-00	CERAMIC	0.0047MF		50V	
C134	1-124-499-11	ELECT	1MF	20%	50V	
C135	1-101-004-00	CERAMIC	0.01MF		50V	
C136	1-101-006-00	CERAMIC	0.047MF		50V	
C137	1-101-880-00	CERAMIC	47PF	5%	50V	
C138	1-124-925-11	ELECT	2.2MF	20%	50V	
C139	1-123-875-11	ELECT	10MF	20%	50V	
C140	1-108-614-11	MYLAR	0.001MF	10%	100V	
C141	1-136-298-00	FILM	0.0033MF	2%	100V	
C142	1-102-816-00	CERAMIC	120PF	5%	50V	
C143	1-101-361-00	CERAMIC	150PF	5%	50V	
C144	1-124-477-11	ELECT	47MF	20%	16V	
C145	1-124-477-11	ELECT	47MF	20%	16V	
C146	1-124-477-11	ELECT	47MF	20%	16V	
C147	1-124-477-11	ELECT	47MF	20%	16V	
C148	1-123-875-11	ELECT	10MF	20%	50V	
C149	1-136-153-00	FILM	0.01MF	5%	50V	
C150	1-136-153-00	FILM	0.01MF	5%	50V	
C151	1-126-233-11	ELECT	22MF	20%	50V	
C152	1-126-233-11	ELECT	22MF	20%	50V	
C153	1-136-165-00	FILM	0.1MF	5%	50V	
C154	1-136-169-00	FILM	0.22MF	5%	50V	

A

REF.NO.	PART NO.	DESCRIPTION				REMARK
C155	1-124-963-11	ELECT	33MF	20%	16V	
C156	1-136-157-00	FILM	0.022MF	5%	50V	
C157	1-136-161-00	FILM	0.047MF	5%	50V	
C158	1-124-963-11	ELECT	33MF	20%	16V	
C159	1-124-477-11	ELECT	47MF	20%	16V	
C161	1-124-477-11	ELECT	47MF	20%	16V	
C162	1-102-816-00	CERAMIC	120PF	5%	50V	
C163	1-124-927-11	ELECT	4.7MF	20%	50V	
C164	1-106-367-00	MYLAR	0.01MF	10%	400V	
C165	1-136-287-11	FILM	0.0047MF	5%	50V	
C167	1-124-499-11	ELECT	1MF	20%	50V	
C168	1-106-228-00	MYLAR	0.22MF	10%	100V	
C169	1-123-875-11	ELECT	10MF	20%	50V	
C174	1-124-499-11	ELECT	1MF	20%	50V	
C177	1-102-119-00	CERAMIC	0.0015MF	10%	50V	
C187	1-101-003-00	CERAMIC	0.0047MF		50V	
C188	1-124-963-11	ELECT	33MF	20%	16V	
C189	1-124-963-11	ELECT	33MF	20%	16V	
C190	1-106-220-00	MYLAR	0.1MF	10%	100V	
		<FILTER>				
CD102	1-404-745-11	DISCRIMINATOR, CERAMIC				
CD103	1-404-746-11	DISCRIMINATOR, CERAMIC				
CF101	1-404-134-00	TRAP, CERAMIC (5.5MHZ)				
CF103	1-527-840-00	FILTER, CERAMIC				
CF104	1-527-839-00	FILTER, CERAMIC				
SWF101	1-577-254-11	SAWF				
		<CONNECTOR>				
CNA11	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P				
		<DIODE>				
D105	8-719-109-92	DIODE RD6.2ES-B1				
D106	8-719-911-19	DIODE 1SS119				
D108	8-719-000-06	DIODE MC921				
D110	8-719-911-19	DIODE 1SS119				
D111	8-719-109-68	DIODE RD3.6ES-B1				
		<IC>				
IC101	8-759-909-08	IC TDA3541				
IC102	8-759-973-86	IC TDA2558				
IC103	8-759-030-48	IC TDA6600-2				
IC104	8-759-946-99	IC TDA2595-V7				
		<COIL>				
L101	1-408-226-00	INDUCTOR	82UH			
L102	1-410-116-11	INDUCTOR	0.56MMH			
L103	1-408-406-00	INDUCTOR	5.6UH			
L104	1-408-411-00	INDUCTOR	15UH			
L106	1-408-415-00	INDUCTOR	33UH			
L107	1-408-406-00	INDUCTOR	5.6UH			
L108	1-408-412-00	INDUCTOR	18UH			
L109	1-408-412-00	INDUCTOR	18UH			
L110	1-410-064-11	INDUCTOR	2.7MMH			
L111	1-408-421-00	INDUCTOR	100UH			
L113	1-408-399-00	INDUCTOR	1.5UH			
		<TRANSISTOR>				
Q101	8-729-900-61	TRANSISTOR DTA114ES				
Q102	8-729-900-61	TRANSISTOR DTA114ES				
Q103	8-729-900-61	TRANSISTOR DTA114ES				
Q104	8-729-900-61	TRANSISTOR DTA114ES				
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q107	8-729-173-38	TRANSISTOR 2SA733-K				
Q108	8-729-900-65	TRANSISTOR DTA144ES				
Q109	8-729-900-89	TRANSISTOR DTC144ES				
Q110	8-729-173-38	TRANSISTOR 2SA733-K				
Q111	8-729-900-89	TRANSISTOR DTC144ES				
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q116	8-729-900-65	TRANSISTOR DTA144ES				
Q117	8-729-173-38	TRANSISTOR 2SA733-K				
		<RESISTOR>				
R101	1-249-405-11	CARBON	100	5%	1/4W	
R102	1-249-423-11	CARBON	3.3K	5%	1/4W	
R103	1-249-433-11	CARBON	22K	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-418-11	CARBON	1.2K	5%	1/4W	
R106	1-247-891-00	CARBON	330K	5%	1/4W	
R107	1-249-421-11	CARBON	2.2K	5%	1/4W	
R108	1-249-421-11	CARBON	2.2K	5%	1/4W	
R109	1-249-423-11	CARBON	3.3K	5%	1/4W	
R110	1-249-410-11	CARBON	270	5%	1/4W	
R111	1-249-418-11	CARBON	1.2K	5%	1/4W	
R112	1-249-421-11	CARBON	2.2K	5%	1/4W	
R114	1-249-413-11	CARBON	470	5%	1/4W	
R115	1-249-413-11	CARBON	470	5%	1/4W	
R116	1-249-419-11	CARBON	1.5K	5%	1/4W	
R117	1-249-431-11	CARBON	15K	5%	1/4W	
R118	1-249-425-11	CARBON	4.7K	5%	1/4W	
R119	1-249-417-11	CARBON	1K	5%	1/4W	
R121	1-249-429-11	CARBON	10K	5%	1/4W	
R122	1-249-436-11	CARBON	39K	5%	1/4W	
R123	1-249-417-11	CARBON	1K	5%	1/4W	
R124	1-249-423-11	CARBON	3.3K	5%	1/4W	
R125	1-249-429-11	CARBON	10K	5%	1/4W	
R126	1-249-436-11	CARBON	39K	5%	1/4W	
R127	1-249-432-11	CARBON	18K	5%	1/4W	
R128	1-249-432-11	CARBON	18K	5%	1/4W	
R129	1-249-429-11	CARBON	10K	5%	1/4W	
R130	1-249-429-11	CARBON	10K	5%	1/4W	
R132	1-249-414-11	CARBON	560	5%	1/4W	
R133	1-249-425-11	CARBON	4.7K	5%	1/4W	
R134	1-249-414-11	CARBON	560	5%	1/4W	
R135	1-249-419-11	CARBON	1.5K	5%	1/4W	
R136	1-249-414-11	CARBON	560	5%	1/4W	
R137	1-249-414-11	CARBON	560	5%	1/4W	
R138	1-249-419-11	CARBON	1.5K	5%	1/4W	
R139	1-249-431-11	CARBON	15K	5%	1/4W	
R140	1-249-441-11	CARBON	100K	5%	1/4W	
R141	1-249-425-11	CARBON	4.7K	5%	1/4W	
R142	1-249-441-11	CARBON	100K	5%	1/4W	
R143	1-249-441-11	CARBON	100K	5%	1/4W	
R144	1-249-422-11	CARBON	2.7K	5%	1/4W	
R146	1-249-424-11	CARBON	3.9K	5%	1/4W	
R148	1-249-413-11	CARBON	470	5%	1/4W	
R150	1-249-423-11	CARBON	3.3K	5%	1/4W	
R151	1-249-423-11	CARBON	3.3K	5%	1/4W	
R152	1-249-431-11	CARBON	15K	5%	1/4W	

J1 J2 H3 H4 KS

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1504	1-249-435-11	CARBON	33K	5%	1/4W	
R1505	1-249-433-11	CARBON	22K	5%	1/4W	
R1506	1-247-895-00	CARBON	470K	5%	1/4W	
R1509	1-247-887-00	CARBON	220K	5%	1/4W	
R1510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1511	1-249-417-11	CARBON	1K	5%	1/4W	
R1512	1-249-429-11	CARBON	10K	5%	1/4W	
R1513	1-249-438-11	CARBON	56K	5%	1/4W	
R1514	1-249-417-11	CARBON	1K	5%	1/4W	
R1515	1-247-899-11	CARBON	680K	5%	1/4W	
R1516	1-249-432-11	CARBON	18K	5%	1/4W	
R1517	1-249-410-11	CARBON	270	5%	1/4W	
R1518	1-249-429-11	CARBON	10K	5%	1/4W	
R1519	1-247-883-00	CARBON	150K	5%	1/4W	
R1520	1-247-895-00	CARBON	470K	5%	1/4W	
R1521	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1556	1-249-426-11	CARBON	5.6K	5%	1/4W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON	470K
RV1502	1-228-994-00	RES, ADJ, CARBON	10K
RV1503	1-238-017-11	RES, ADJ, CARBON	22K
RV1504	1-238-012-11	RES, ADJ, CARBON	1K
RV1505	1-238-023-11	RES, ADJ, CARBON	470K
RV1506	1-238-017-11	RES, ADJ, CARBON	22K
RV1507	1-238-009-11	RES, ADJ, CARBON	220
RV1508	1-238-016-11	RES, ADJ, CARBON	10K
RV1509	1-228-999-00	RES, ADJ, CARBON	470K

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*1-629-783-21 J2 BOARD
****

<CAPACITOR>

C1401	1-126-105-11	ELECT	1000MF	20%	35V
C1402	1-126-105-11	ELECT	1000MF	20%	35V

<CONNECTOR>

CNJ23	*1-564-893-11	PLUG, CONNECTOR 4P
CNJ242	*1-564-893-11	PLUG, CONNECTOR 4P

<JACK>

J1401	1-507-806-00	JACK

<RESISTOR>

R1401	1-247-708-11	CARBON	470	5%	1/4W
R1402	1-247-708-11	CARBON	470	5%	1/4W

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*1-629-785-21 H3 BOARD
****

<CONNECTOR>

CNH302	*1-564-898-11	PLUG, CONNECTOR 9P
CNH303	*1-564-892-41	PLUG, CONNECTOR 3P

<DIODE>

D1405	8-719-812-41	DIODE TLR124
	*4-348-208-00	HOLDER, LED; D1405

<SWITCH>

S1401	1-571-085-21	SWITCH, TACTICLE
S1402	1-571-085-21	SWITCH, TACTICLE
S1403	1-571-085-21	SWITCH, TACTICLE
S1404	1-571-085-21	SWITCH, TACTICLE
S1405	1-571-085-21	SWITCH, TACTICLE
S1406	1-571-085-21	SWITCH, TACTICLE
S1407	1-571-085-21	SWITCH, TACTICLE
S1408	1-571-085-21	SWITCH, TACTICLE
S1409	1-571-085-21	SWITCH, TACTICLE
S1410	1-571-085-21	SWITCH, TACTICLE
S1411	1-571-085-21	SWITCH, TACTICLE
S1412	1-571-085-21	SWITCH, TACTICLE
S1414	1-571-085-21	SWITCH, TACTICLE

****

*1-629-786-21 H4 BOARD
****

*4-374-987-01	GUIDE, LIGHT	
*4-388-955-01	BRACKET (B), LIGHT GUIDE	

<CONNECTOR>

CNH401	*1-564-884-11	PLUG, CONNECTOR 7P
CNH403	*1-564-880-31	PLUG, CONNECTOR 3P

<DIODE>

D1401	8-719-948-31	DIODE LD-201VR
	*4-387-825-01	HOLDER, LED; D1401
D1402	8-719-948-31	DIODE LD-201VR
	*4-387-825-01	HOLDER, LED; D1402
D1403	8-719-948-31	DIODE LD-201VR
	*4-387-825-01	HOLDER, LED; D1403
D1404	8-719-948-31	DIODE LD-201VR

<IC>

IC1401	8-741-138-70	IC BX-1387
IC1401	8-749-901-33	IC SBX1483-11

****

*1-629-781-21 KS BOARD
****

<CAPACITOR>

C202	1-124-902-00	ELECT	0.47MF	20%	50V
C203	1-124-477-11	ELECT	47MF	20%	16V
C204	1-124-902-00	ELECT	0.47MF	20%	50V
C205	1-124-927-11	ELECT	4.7MF	20%	50V
C206	1-124-477-11	ELECT	47MF	20%	16V
C207	1-124-927-11	ELECT	4.7MF	20%	50V
C213	1-126-233-11	ELECT	22MF	20%	50V
C214	1-106-363-00	MYLAR	0.0068MF	10%	400V
C217	1-106-363-00	MYLAR	0.0068MF	10%	400V
C218	1-106-375-12	MYLAR	0.022MF	10%	250V
C219	1-106-375-12	MYLAR	0.022MF	10%	250V

Ks

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C220	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C221	1-108-620-11	MYLAR	0.0033MF	10%	100V	
C222	1-106-375-12	MYLAR	0.022MF	10%	250V	
C223	1-106-375-12	MYLAR	0.022MF	10%	250V	
C224	1-106-367-00	MYLAR	0.01MF	10%	400V	
C225	1-136-173-00	FILM	0.47MF	5%	50V	
C226	1-136-173-00	FILM	0.47MF	5%	50V	
C227	1-106-375-12	MYLAR	0.022MF	10%	250V	
C228	1-106-379-12	MYLAR	0.033MF	10%	250V	
C229	1-106-371-00	MYLAR	0.015MF	10%	400V	
C230	1-106-371-00	MYLAR	0.015MF	10%	400V	
C231	1-124-902-00	ELECT	0.47MF	20%	50V	
C232	1-123-875-11	ELECT	10MF	20%	50V	
C233	1-102-114-00	CERAMIC	470PF	10%	50V	
C234	1-102-114-00	CERAMIC	470PF	10%	50V	
C235	1-102-114-00	CERAMIC	470PF	10%	50V	
C236	1-102-114-00	CERAMIC	470PF	10%	50V	
C237	1-124-902-00	ELECT	0.47MF	20%	50V	
C238	1-102-978-00	CERAMIC	220PF	5%	50V	
C239	1-126-103-11	ELECT	470MF	20%	16V	

<CONNECTOR>

CNK21	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P	
CNK25	*1-564-880-31	PLUG, CONNECTOR 3P	

<DIODE>

D201	8-719-110-14	DIODE RD9.1ES-B3	
D202	8-719-110-14	DIODE RD9.1ES-B3	
D205	8-719-110-04	DIODE RD7.5ES-B3	
D206	8-719-110-04	DIODE RD7.5ES-B3	

<IC>

IC201	8-759-013-17	IC TDA6200	

<TRANSISTOR>

Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

R201	1-249-441-11	CARBON	100K	5%	1/4W
R202	1-249-425-11	CARBON	4.7K	5%	1/4W
R203	1-249-441-11	CARBON	100K	5%	1/4W
R204	1-249-435-11	CARBON	33K	5%	1/4W
R205	1-249-435-11	CARBON	33K	5%	1/4W
R206	1-249-423-11	CARBON	3.3K	5%	1/4W
R207	1-249-423-11	CARBON	3.3K	5%	1/4W
R208	1-249-431-11	CARBON	15K	5%	1/4W
R209	1-249-433-11	CARBON	22K	5%	1/4W
R210	1-249-431-11	CARBON	15K	5%	1/4W
R211	1-249-441-11	CARBON	100K	5%	1/4W
R212	1-249-433-11	CARBON	22K	5%	1/4W
R213	1-249-431-11	CARBON	15K	5%	1/4W
R214	1-249-417-11	CARBON	1K	5%	1/4W
R215	1-249-433-11	CARBON	22K	5%	1/4W
R216	1-249-433-11	CARBON	22K	5%	1/4W
R217	1-249-431-11	CARBON	15K	5%	1/4W
R218	1-249-417-11	CARBON	1K	5%	1/4W
R219	1-249-429-11	CARBON	10K	5%	1/4W
R220	1-249-425-11	CARBON	4.7K	5%	1/4W
R221	1-249-417-11	CARBON	1K	5%	1/4W
R222	1-249-417-11	CARBON	1K	5%	1/4W
R223	1-249-413-11	CARBON	470	5%	1/4W
R224	1-249-413-11	CARBON	470	5%	1/4W
R225	1-249-417-11	CARBON	1K	5%	1/4W
R226	1-249-417-11	CARBON	1K	5%	1/4W
R227	1-249-417-11	CARBON	1K	5%	1/4W
R228	1-249-417-11	CARBON	1K	5%	1/4W
R229	1-249-441-11	CARBON	100K	5%	1/4W
R230	1-249-441-11	CARBON	100K	5%	1/4W
R231	1-249-437-11	CARBON	47K	5%	1/4W
R232	1-249-437-11	CARBON	47K	5%	1/4W

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MISCELLANEOUS
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⚠	1-451-311-31	DEFLECTION YOKE (Y25FXA)	
	1-452-032-00	MAGNET, DISK; 10MMφ	
	1-452-094-00	MAGNET, RPTATABLE DISK; 15MMφ	
	1-452-277-00	MAGNET, BMC	
	1-503-642-41	SPEAKER	
	1-574-565-11	CORD (WITH PLUG)	
⚠	1-559-346-12	CORD, POWER (WITH CONNECTOR)	
L901 ⚠	1-426-372-11	COIL, DEMAGNETIZATION	
V901 ⚠	8-733-224-05	PICTURE TUBE (A59JWC60X)	

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ACCESSORIES AND PACKING MATERIALS
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PART NO.	DESCRIPTION	REMARK
A-1470-844-A	COMMANDER ASSY (RM-673)	
3-750-032-51	MANUAL, INSTRUCTION	
*4-381-155-01	BAG, PROTECTION	
*4-387-845-02	CUSHION (UPPER) (ASSY)	
*4-387-846-02	CUSHION (LOWER) (ASSY)	
*4-387-847-01	INDIVIDUAL CARTON	

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9-964-242-01

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TV Group

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